BOROUGH OF JARROW.

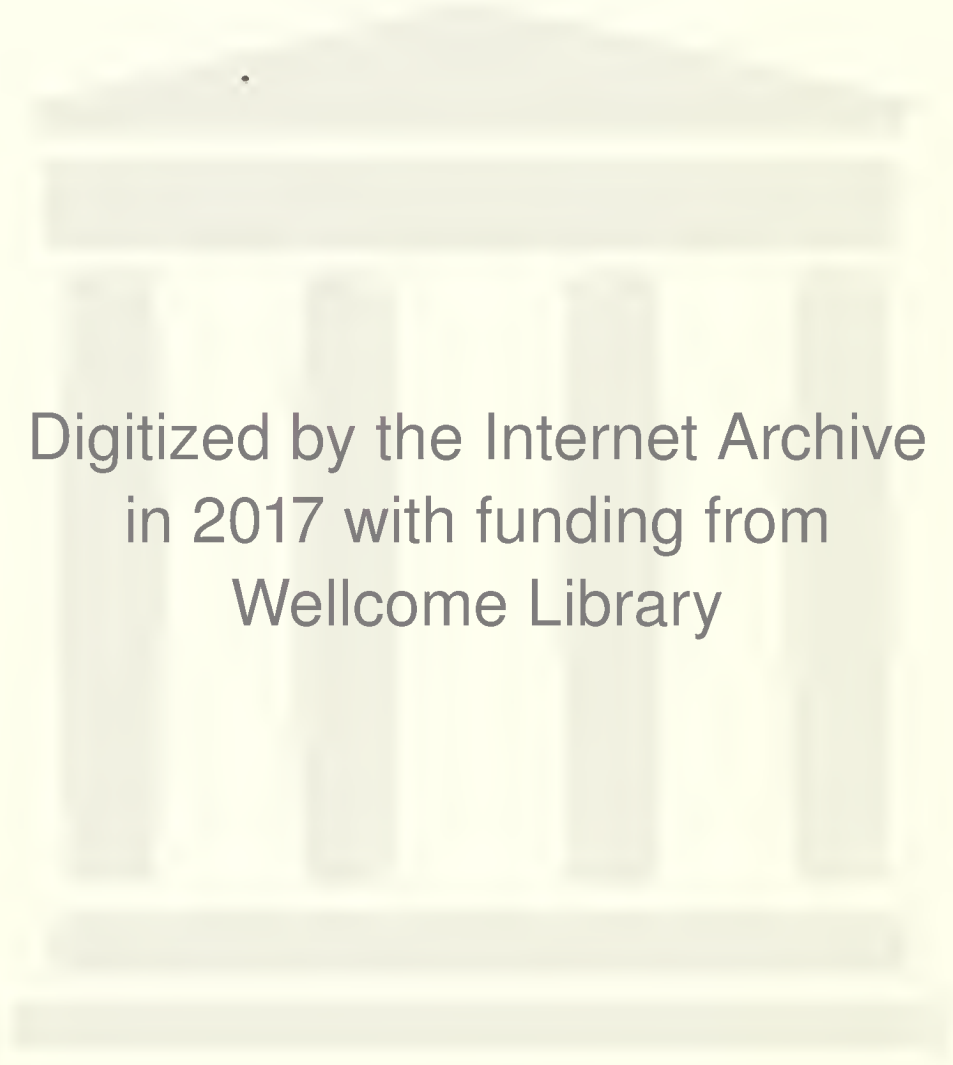
Annual Report

OF THE

HEALTH DEPARTMENT

FOR 1920.

G. R. BRUCE, O.B.E., M.A., M.D., D.P.H.,
MEDICAL OFFICER OF HEALTH.



Synopsis of Contents.

SYNOPSIS OF CONTENTS (*continued*).

HOUSING.

SYNOPSIS OF CONTENTS (*continued*).

Town Hall,
Jarrow,
April, 1921.

To the Chairman and Members of the Sanitary Committee.

Gentlemen,—

I beg to lay before you the Annual Report for 1920 on the health of the Borough.

Your attention is particularly directed to the striking fall in the infantile mortality during 1920, from 151 per 1000 births, the figure in 1919, to 84.8 per 1000 births, the average figure for the five years 1915-1919 being 126 per 1000 births. Whatever other influences were at work in producing this happy result, the increased efforts directed towards infant welfare both in the homes and in the clinics must have contributed materially. It affords much encouragement in continuing the work and even extending it as circumstances permit.

The general death rate 16.1 per 1000 living even though distinctly above the national rate must be considered satisfactory for this district, having only been equalled on one occasion.

The birth rate of 34.8 per 1000 living is high even for this Borough, and marks the rebound after the lean war years.

The housing question, both as regards provision of new houses and the tackling of our unhealthy slum areas, remains the paramount sanitary question, and it is satisfactory to note the commencement of our housing scheme at the end of 1920. At the same time, even although the economic situation prevents immediate development, it is essential to keep prominently before the public the necessity for certain other health measures, including the conversion from the prevailing ash closet to water carriage, the provision of a public abbatoir, improved or additional hospital accommodation for infectious diseases, maternity cases and children. These and other similar matters have been dealt with in the report.

I have to express my thanks to Ald. J. J. Weir, J.P., Chairman of the Sanitary Committee, and to Ald. J. D. Rose, J.P., who vacated the chair after many years of valuable service, for their uniform support in all matters pertaining to the Health Department.

I acknowledge also with much gratitude the valuable assistance rendered to me by all members of my staff.

I beg to remain, Gentlemen,

Your obedient servant,

G. R. BRUCE.

ANNUAL REPORT.

SECTION 1.

Natural and Social Conditions of District.

1. POPULATION. (Census 1911, and estimated 1920.)

At the census of 1911 the population of Jarrow was found to be 33,372, this figure being 562 less than that of the 1901 Census. The average number of persons per inhabitated house was 4.8, there being at that time 500 uninhabitated houses in the Borough.

During the war the estimation of population has been a matter of great difficulty, but by the aid of food cards a fairly accurate approximation has been possible. From 1917 to 1919 the Registrar General calculated the population under two figures :—

(a). The higher, for birth-rate statistics, included all citizens known to be absent on military service, being for 1919 37,271.

(b). The lower, for death-rate statistics, excluded all citizens absent on military service, being for 1919 35,779.

For the current year 1920 the Registrar-General has dropped the double estimation and given one figure, 37,204, to be used both for birth and death statistics. I do not think this figure is too high in view of the well-known prevalent overcrowding, the number of sublet houses and the prosperity of the ship building and other industries up to the autumn of 1920. The forthcoming census of 1921 will prove the accuracy or otherwise of the figure, although it must be remembered it will be taken after a period of 6 months' acute trade depression, which must inevitably reduce our floating unskilled labour population.

Ward Estimation.

For the various Wards the population for 1920 has been estimated as follows :—

North	5117
South	8368
East	5317
West	6368
Grange	6417
Central	5617
Total ...	37204

2. PHYSICAL FEATURES AND GENERAL CHARACTER OF THE DISTRICT
and
3. SOCIAL CONDITIONS.

The necessary points in connection with the physical features, etc., of the district have been fully gone into in many reports including that for 1919.

4. AMOUNT OF POOR LAW RELIEF.

After the end of the moulders' strike employment was good and consequently the numbers on parish relief fell below the average. Towards the end of 1920 unemployment increased and in addition large numbers of men were working short time. Accordingly there was a rapid rise of applicants for relief, which will undoubtedly be continued well into 1921.

5. HOSPITALS AND OTHER GRATUITOUS MEDICAL RELIEF.

Information under this heading was fully given in the 1919 report. During the year an important addition comprising out-patient department, offices, orthopaedic department with all the latest electrical and baths equipment, 6 to 8 additional beds, and a mortuary has been completed and taken into use at the Palmer's Memorial Hospital. By mutual arrangement the new mortuary is available as a town mortuary when required.

Undoubtedly this borough suffers from lack of hospital beds, especially in the following two directions :

A. COTTAGE HOSPITAL, including beds for ailing children.

B. MATERNITY HOME. See section on Maternity and Child Welfare.

Doubtless, should the DAWSON report on the provision of medical services become an accomplished fact, this borough will be of sufficient size to support a primary centre which will comprise hospital accommodation of this type, acting as a feeder for the ROYAL INFIRMARY and the various specialised hospitals of the secondary centre, Newcastle.

VITAL STATISTICS.

BIRTH-RATE.

During 1920, 1258 births were registered within the Borough, 39 births being transferred from outside the district, making a total of 1297 for the year, as compared with 1068 births for 1919, and giving a birth-rate of 34.8 per 1000 of the population.

SEX AND LEGITIMACY.

Of the total of 1297 births, 681 were males, 616 females; 55 births were illegitimate, 30 male, 25 female, a percentage of 4.2 as compared with 4.4 in 1919.

COMPARISON OF BIRTH-RATE.

ENGLAND AND WALES, 1920	25·4	per 1000 of the population being provisional figures.
97 Great Towns, including London, 1920 ...	26·2	
148 Smaller Towns, 1920	24·9	
London, 1920	26·5	
JARROW, 1920	**34·8**	

COMPARISON OF JARROW BIRTH-RATE WITH PREVIOUS YEARS.

1871—1880	45.2	per 1000 population.
1881—1890	40.3	,, ,,
1891—1900	34.7	,, ,,
1901—1910	32.4	,, ,,
1911—1914	31.5	,, ,,
1915	31.	,, ,,
1916	28.7	,, ,,
1917	25.9	,, ,,
1918	27.7	,, ,,
1919	27.	,, ,,
1920	34.8	,, ,,

TABLE A.

Births Registered in 1920 by Months and Wards. Infantile Mortality Rate by Wards.

Months	North Ward		South Ward		East Ward.		West Ward.		Grange Ward		Central Ward.		Totals		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
January ...	9	9	13	16	11	11	14	10	10	6	12	10	69	62	131
February ...	12	8	14	6	10	14	10	4	4	1	7	7	57	40	97
March ...	10	16	11	11	12	14	12	13	11	9	5	12	61	75	136
April ...	6	7	9	9	5	6	11	9	2	4	8	7	41	42	83
May ...	12	11	9	8	9	11	9	11	8	6	12	12	59	59	118
June ...	12	10	14	16	9	7	15	5	4	8	7	5	61	51	112
July ...	9	7	10	10	9	10	8	11	4	4	6	7	46	49	95
August ...	8	8	11	6	13	6	12	11	5	8	8	10	57	49	106
September ...	6	11	13	13	11	8	9	7	9	8	8	8	56	55	111
October ...	4	5	11	7	7	12	7	7	4	4	11	9	44	44	88
November ...	7	4	17	13	8	4	11	11	11	5	12	1	66	38	104
December ...	8	2	7	12	10	6	6	8	5	2	5	6	41	36	77
Total Births M. & F.	103	98	139	127	114	109	124	107	77	65	101	94	658	600	1258
	201		266		223		231		142		195		1258		*39
Birth Rate per 1000...	39·2		28·2		43·8		36·3		22·5		34·7		34·8		
Total Deaths under 1 year by Wards ...	21		22		24		15		10		18		110		
Inf'ntile Mortality, 1920, by Wards per 1000 Births	99·5		82·7		103		64·9		68·9		92·3		84·8		
Correspond'g Figs. for 1919	186		198		116		130·8		139·2		146·2		151·7		

* Births Registered from outside districts.

COMMENTS ON BIRTH STATISTICS FOR 1921.

Throughout the whole country reports are being received as to the increase in the number of births during 1920 as compared with many previous years during which the birth-rate has steadily tended to decline. In this increase, showing to the full the recuperative capacity of the

race, Jarrow has taken its due share. The birth-rate rose from 27 per 1000 in 1919 to 34.8 per 1000 in 1920 and it is necessary to go back as far as the decade of 1891-1900 to obtain a similar figure. Jarrow shows in 1920 an increase of males over females amounting to 65. Looking back on several years previous to 1920 the tendency has been for the number of female births to exceed those of males. The significent increase of the male births has been noted elsewhere in 1920, several commentators ascribing it to Nature's method of helping to replace the loss of males in the late war. On the other hand a slightly higher male birth-rate is generally accepted as a natural phenomenon.

As Table A shows, several of the Wards have a very high birth-rate, notably the East Ward, with 43.8 per 1000. The Grange Ward, which contains the largest number of better class houses, has a birth-rate of 22.5 per 1000 showing a big increase from its rate of 1919, 12.2 per 1000.

Table A also shows that in spite of the high birth-rate the infantile mortality was low, in fact just over 50% of that of 1919.

DEATH STATISTICS.

DEATH-RATE.

During 1919, 461 deaths were registered as having occurred within the Borough; one being non-resident was transferred to its own area; 139 deaths occurring outside the area were transferred to Jarrow, making a nett total for the year of 599 deaths, equivalent to an annual death-rate of 16.1, as compared to a death-rate of 19.5 for 1919 per 1000 of the population.

SEX DISTRIBUTION.

Of the deaths 325 were males, 274 were females.

TRANSFERABLE DEATHS.

Of the 139 deaths transferred to the Borough, the greater proportion occurred in institutions, including :—

Harton Workhouse Infirmary	69	deaths.
Sedgefield Asylum	7	,,
Primrose Isolation Hospital	6	,,
Royal Victoria Hospital	19	,,
Fleming Memorial Hospital	6	,,
Otherwise	32	,,

CORONER'S INQUESTS.

During 1920 inquests were held on 29 deaths, this being 4.8 of the total deaths.

UNCERTIFIED DEATHS.

During 1920, 24 deaths or 4% of the total deaths were returned as uncertified.

NATURAL INCREASE OF POPULATION.

The number of births in excess of deaths is 698, as compared with 309 in 1919, a remarkable increase.

DISTRIBUTION OF DEATHS.

Table B shows the distribution of deaths according to months, diseases and wards.

Table III. of the Appendix shows the number of deaths according to ages.

COMPARISON OF DEATH-RATE.

(A) With England Generally.

General Death Rate during 1920	England and Wales ...	12·4 per 1000	provisional figures.
	96 Great Towns, including London	12·5 ,,	
	146 Smaller Towns ...	11·3 ,,	
	London	12·4 ,,	
	JARROW	**16·1** ,,	

(B) With previous Death-Rates in Jarrow.

1871—1880	23.9	per 1000.
1881—1890	21.1	,,
1891—1900	19.4	,,
1901—1910	17.9	,,
1911—1914	16.7	,,
1915	21.5	,,
1916	17.3	,,
1917	16.1	,,
1918	21.9	,,
1919	19.5	,,
1920	**16.1**	,,

TABLE B.

Table showing the distribution of Deaths according to Diseases, Months, and Wards, during 1920.

	January.	February.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.	North.	South.	East.	West.	Grange.	Central.
Encephalitis & Polio-myelitis	...	...	2	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	1
Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...
Scarlet Fever	...	1	...	3	1	...	...	...	...	...	...	...	5	1	1	1	...	2	...
Whooping Cough	...	...	1	2	2	2	...	1	...	1	1	2	12	2	4	3	...	1	2
Diphtheria	1	1	...	1	1	...	1	...	...	...	...	1	6	...	3	1	...	...	2
Influenza	1	...	1	1	...	...	...	...	...	...	...	4	7	1	1	2	1	1	1
Erysipelas	...	...	1	1	1	...	...	...	...	2	...	1	6	1	1	...	2	...	2
Small-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cerebro Spinal Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	8	6	2	2	7	3	5	7	4	5	4	4	57	12	12	3	11	4	15
Tubercular Meningitis ...	1	1	2	1	...	...	...	2	1	...	...	...	8	1	...	2	2	1	2
Other Tubercular Diseases ...	1	5	2	2	1	2	...	2	3	1	...	3	22	3	6	6	3	1	3
Rheumatic Fever ...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...
Cancer	4	4	6	5	3	7	1	3	3	1	3	3	43	5	8	7	7	11	5
Bronchitis	5	8	7	7	4	7	2	4	6	3	7	3	63	9	5	14	7	9	19
Pneumonia	3	6	14	4	10	8	2	4	3	5	10	13	82	24	14	16	9	7	12
Acute Meningitis ...	2	...	...	...	...	...	...	1	...	1	...	...	4	2	1	...	...	1	...
Heart Disease	2	1	3	5	6	1	2	6	4	4	5	3	42	8	10	5	6	3	10
Other Respiratory Diseases ...	2	3	1	1	1	...	...	...	1	...	...	...	9	...	2	2	2	...	3
Diarrhœa Enteritis, under 2 yrs	2	1	...	...	1	...	1	1	3	4	...	3	16	2	2	6	3	2	1
Appendicitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Nephritis	...	1	...	1	3	1	...	3	...	...	2	...	11	2	3	...	2	2	2
Puerperal Fever	...	...	...	..	2	...	...	...	1	...	...	...	3	...	...	1	1	...	1
Accidents and Diseases of Pregnancy	...	...	...	2	...	...	...	...	...	...	...	...	2	...	1	1	...	...	...
Congenital Debility ...	3	5	7	...	3	4	1	2	1	4	6	4	40	10	8	7	8	1	6
Violent Deaths	2	3	4	4	5	2	2	2	1	1	1	1	28	3	5	10	2	3	5
Suicide	...	...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...
Other Defined Diseases ..	16	11	9	14	11	7	7	16	8	6	10	12	127	23	24	25	12	23	20
Ill Defined Diseases ...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
Total ...	54	58	63	56	62	44	24	54	39	38	49	58	599	110	111	113	80	73	112
DEATH RATE PER 1000													16·1	21·4	13·2	21·4	12·5	11·3	19·9

INFANTILE MORTALITY, 1920.

110 deaths in infants under one year of age were registered, as compared with 153 in the previous year, giving an infantile mortality for the year of 84.8 per 1000 births, as compared to 151.7 per 1000 births in 1919. Beyond noting this remarkable decrease, comment is postponed until the section on Maternity and Child Welfare.

GENERAL COMMENTS ON DEATH-RATE STATISTICS.

A. The general death-rate of 16.1 per 1000 though distinctly higher than the provisional figure for England and Wales, namely, 12.4 per 1000, is a favourable one for Jarrow, being the lowest recorded though equalled in 1917.

B. Among the main causes of death requiring comment are—

(1). Tuberculosis, all forms—87 deaths, equal to a rate of 2.33 per 1000.

(2). Pneumonia and Bronchitis—145 deaths, equal to a rate of 3.89 per 1000.

(3). Congenital Debility, Prematurity and Atrophy in infants, 40 deaths, equal to a rate of 1.07 per 1000.

(4). Violent deaths—28, equal to a rate of .75 per 1000.

C. As compared with 1919 when the death-rate was 19.5 per 1000 the main saving has been in the following :—

(1). Influenza, which in 1920 caused 7 deaths as compared with 79 in 1919.

(2). Diarrhœa and Enteritis under 2 years, which in 1920 caused 16 deaths as compared with 39 in 1919.

(3). Infant Deaths under 1 year in 1920 were 110 as compared with 153 in 1919.

EXAMINATION OF DEATH STATISTICS IN DETAIL.

The information received with regard to notification of infectious diseases will be considered in conjunction with the mortality of each disease.

NOTIFICATION OF INFECTIOUS DISEASES IN 1920.

	Notifications.
Diphtheria	22
Erysipelas	42
Scarlet Fever	219
Enteric Fever	3
Puerperal Fever	6
Encephalitis Lethargica	3
Ophthalmia Neonatorum	4
Pulmonary Tuberculosis	89
Other forms of Tuberculosis	55
Chicken Pox	55
Pneumonia, including Influenzal Pneumonia	226
Malaria	6
Polio-myelitis	1
Acute Infantile Diarrhœa	65
Total	796

ZYMOTIC MORTALITY.

The following table shows the deaths from the seven principal Zymotic Diseases during the past 6 years.

	1920.	1919.	1918.	1917.	1916.	1915.
Enteric Fever	Nil.	Nil.	1	1	2	1
Small-pox	Nil.	Nil.	Nil.	Nil.	Nil.	Nil.
Measles	1	24	Nil.	32	1	66
Whooping Cough	12	Nil.	19	Nil.	17	14
Diphtheria and Croup	6	1	6	4	2	7
Scarlet Fever	5	9	Nil.	1	Nil.	2
Diarrhœa and Enteritis (under 2)	16	39	13	13	7	35
Total Deaths	40	73	39	51	29	125
Zymotic death-rate per 1000	1.07	2	1.1	1.4	.8	3.5

ENTERIC FEVER.

During 1920 three cases of enteric fever were notified, one of which turned out on bacteriological examination to be positive. A fourth suspected case after observation at the Isolation Hospital was found negative. There were no deaths.

The remarkable reduction in the incidence and death-rate from enteric fever is both local and national, and is the more noteworthy considering the large numbers of soldiers who contracted this disease especially in our Eastern campaigns. It proves that great care must have been exercised in curing as far as possible all carrier cases at the enteric hospitals before their final discharge.

A few decades ago a low enteric incidence in a locality generally accompanied a good system of sanitation. This view can no longer be wholly maintained—for as criteria of the general sanitary arrangements we must look to the infantile mortality rate, the general death-rate, the death-rate from tuberculosis and in infants under 2 from diarrhœa and enteritis, none of which in this district gives so much cause for satisfaction as the notable decrease in enteric fever.

SMALL-POX.

No case of small-pox occurred during 1920.

No vaccinations were undertaken under the Public Health (Small-Pox Prevention) Regulations of 1917.

Primary vaccinations by Public Vaccinator 1917-1920 :—

	No of Births.	No. of Vaccinations.	Per cent. of Vaccinations to Births.
1917	1025	317	30
1918	1060	118	10
1919	1008	370	36
1920	1297	455	35

The low percentage of primary vaccinations continues. In view of the Glasgow epidemic and the minor sporadic outbreaks reported in England during the past year this huge percentage of conscientious objectors is much to be deplored, more especially as the majority of the objectors have very little idea as to what they are objecting, considering that vaccination is some sort of vague protection against all manner of infectious diseases.

Every opportunity is being taken to present vaccination in its proper light through the maternity centres and elsewhere, but the local absence of small-pox for the time being has lulled a large portion of the population into a false security.

DIPHTHERIA AND CROUP.

Deaths from Diphtheria and Croup for Six Years.

Year.	No of Deaths.
1920	6
1919	1
1918	6
1917	4
1916	2
1915	7

During the year 22 cases of diphtheria were notified with 6 deaths. The cases occurred sporadically throughout the year, there being no apparent connection between the cases. Of the 6 deaths 2 were due to pharyngeal diphtheria and 4 to diphtheritic croup.

The small number of notified cases of diphtheria, with a high death-rate, is in my opinion more apparent than real. It is uncommon for poorer class people to call in a doctor for tonsilitis or croup unless severe symptoms supervene.

I am convinced that a considerable number of the milder diphtherias are never seen by a medical man, but undergo spontaneous care. In this district the notified incidence of diphtheria has been relatively small for several years.

Diphtheria antitoxin is available at the Health Department for the use of the medical practitioners of the district.

SCARLET FEVER.

TABLE A.—NOTIFICATIONS.

Month.	Age.								Total.	Ward.						Total
	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65-over		North	South	East	West	Grange	Central	
January	...	1	4	15	4	1	...	...	25	...	8	6	9	2	...	25
February	...	...	6	7	1	1	...	...	15	1	2	1	2	4	5	15
March	...	...	4	19	1	...	...	...	24	4	...	7	4	6	3	24
April	...	1	6	29	1	...	...	...	37	3	14	7	5	7	1	37
May	...	...	2	15	3	...	1	...	21	...	6	8	2	3	2	21
June	...	1	3	14	3	1	...	...	22	...	5	6	6	...	5	22
July	...	...	...	17	2	1	1	...	21	6	1	6	1	4	3	21
August	...	1	1	13	...	...	...	...	15	1	2	1	2	5	4	15
September	...	...	3	11	1	1	...	...	16	...	7	1	3	1	4	16
October	...	...	1	10	...	...	...	...	11	...	5	1	2	2	1	11
November	...	...	...	5	1	...	1	...	7	...	2	2	1	1	1	7
December	...	...	...	5	...	...	...	...	5	...	2	...	...	1	2	5
Total	1	3	30	160	17	5	3	...	219	15	54	46	37	36	31	219

TABLE B.

Year.	No. of Deaths.
1920	5
1919	9
1918	Nil.
1917	1
1916	Nil.
1915	2

(1). Incidence.—During the last 4 months of 1919 the incidence rate of Scarlet Fever rose to 13 per month. This incidence increased considerably in 1920 reaching its height in April—37 cases, and gradually dying down until by the late autumn it had fallen to 11 cases per month. The South Ward had most cases, 54, the North least, 15 cases, the remaining four wards ranging from 31 to 46 cases, the cases being distributed generally. The focus in several instances appeared to centre in or about schools, without causing epidemics, small groups of cases occurring with some slight connection at the Grange Infants, Dunn Street Infants, and St. Peter's Schools. Beyond keeping a close look out for fresh cases, examining old cases to exclude carriers, dealing with close contacts and the general disinfection of classrooms, it was not necessary to recommend any closure of schools. We were not dealing with an epidemic, merely a prolonged prevalence over several months.

(2). Sources of Infection.—In many instances one case infected other members of a family. School infection as reported above accounted for a few cases. The disease in other instances was so slight that notification and isolation were only practised after 2-3 weeks, when desquamation was evident. Return cases after hospital treatment were very few, 2 or possibly 3 during the year.

(3). Type of Disease.—During the early part of the year when cases were most numerous this was severe, several cases being of the septic or toxic type. Later in the year the severity considerably diminished. There were 5 deaths to 219 cases—a case mortality of 2.2%.

(4). Removal to Isolation Hospital.—192 or 87% of the total cases were removed to the Isolation Hospital.

TUBERCULOSIS.

A. TABLE SHOWING NUMBER OF CASES OF TUBERCULOSIS NOTIFIED.

Ages.	No. of Cases. Pulmonary.	Others.	Tl.
0— 1	Nil.	Nil.	Nil.
1— 5	9	12	21
5—15	23	33	56
15—25	25	7	32
25—45	21	1	22
45—65	11	1	12
65—over	Nil.	1	1
Totals	89	55	144

Wards.	No. of Cases. Pulmonary.	Others.	Tl.
North	18	9	27
South	14	10	24
East	17	9	26
West	17	14	31
Grange	3	5	8
Central	20	8	28
Totals	89	55	144

(B). TABLE SHOWING DEATHS FROM PULMONARY AND OTHER FORMS OF TUBERCULOSIS.

Ages.	No. of Deaths. Pulmonary.	Others.	Tl.
0— 1	2	0	2
1— 5	1	16	17
5—15	7	3	10
15—25	10	6	16
25—45	20	4	24
45—65	14	0	14
65—over	3	1	4
Totals	53	30	87

Wards.	No. of Deaths. Pulmonary.	Others.	Tl.
North	12	4	16
South	12	6	18
East	3	8	11
West	11	5	16
Grange	4	2	6
Central	15	5	20
Totals	57	30	87

(C). COMPARISON OF DEATH-RATE WITH PREVIOUS YEARS AND WITH THE NATIONAL DEATH-RATE.

	No. of Deaths from Tuberculosis.	Death Rate per 1000.	England and Wales per 1000. Death Rate
1910	61	1.6	1.44
1912	62	1.6	1.37
1914	88	2.2	1.36
1915	93	2.6	1.52
1916	86	2.5	1.53
1917	87	2.4	1.62
1918	100	2.9	1.69
1919	90	2.5	1.26
1920	87	2.3	1.13*

* Provisional.

(D). DEATH-RATE ALL FORMS OF TUBERCULOSIS BY WARDS, 1920.

Ward.	Total Deaths.	Death-rate per 1000.
North	16	3.1
South	18	2.1
East	11	2
West	16	2.5
Grange	6	.9
Central	20	3.5
Total	87	2.3

(E). NOTIFICATIONS AND DEATHS FROM TUBERCULOSIS BY AGE GROUPS.

Pulmonary Tuberculosis.

	Under 1 year	1 2	2 5	5-15	15-25	25-45	45-65	65 & Over	Total
Notifications ...		3	6	23	25	21	11	—	89
Deaths	2	—	1	7	10	20	14	3	57

Other forms of Tuberculosis.

Notifications ...	—	5	7	33	7	1	1	1	55
Deaths	—	6	10	3	6	4	—	1	30

The tuberculosis statistics demand most serious attention. For the Borough the death-rate per 1000 works out at 2.3 per 1000 being highest in the North and Central Wards—2.5 and 3.1 respectively, and lowest in the Grange Ward with .9 per 1000. The attack rate, based on notifications both of pulmonary and other forms of tuberculosis, works out at 3.8 per 1000 of the population a rate approximately one and a half times greater than the all England rate for 1918.

For the year 1919 a very considerable fall from 1.69 per 1000 to 1.26 is recorded for the country in the death-rate from all forms of tuberculosis, this improvement being maintained during 1920. The increase in the death-rate from tuberculosis caused by the war has now been definitely checked. Locally it is impossible to extract so much satisfaction from recent statistics. Table C shows that our death-rate from tuberculosis, 1.6 in 1910, was but little over the national rate of 1.4. In 1914 the discrepancy was greater, 2.2 per 1000 as compared with the national rate of 1.36. During the war the figure for Jarrow rose steeply, attaining the height of 2.9 in 1918 and falling to 2.3 in 1920. While it is gratifying to note a fall, this death-rate compares very unfavourably with the national rate, being approximately double. Tuberculosis caused exactly 1 7th of all the deaths in this town during 1920.

The causes of the excessive prevalence of tuberculosis in this town are probably complex though mainly social. Amongst the most important local causes are the prevalent overcrowding, especially in the one and two roomed types of houses, the bad housing conditions generally, the dusty and irritating atmosphere near the works, the low standard of hygiene practised by many of the poorer classes and perhaps the inclement climate as a minor factor. A vicious circle, too, must be well established in that each rising generation is confronted with massive doses of infection with feeble means of resistance owing to environment. The statistics of the North and Central Wards amply illustrate the intensity of the infection in badly housed wards, while on the other hand a well housed ward, the Grange Ward, gives a death-rate well below even the falling national rate.

The County of Durham Tuberculosis Dispensary.

Active anti-tuberculosis measures are carried out by the above dispensary under Dr. Boleyn, the district Tuberculosis Officer, there being constant and cordial co-operation with the Municipal Health Department. I am indebted to Dr. Boleyn for the following information.

Total Jarrow residents receiving dispensary treatment,	1920	400.
Total Jarrow residents aged 5-14 ,, ,, ,,	1920	162.
Total Jarrow residents admitted to Sanatoria	1920	41.
Total Jarrow residents aged 5-14 ,, ,,	1920	9.

It is gratifying to note that the Tuberculosis Care Committee for the district has now been resuscitated. The tuberculosis dispensary by means of its consultations, home visiting and propaganda generally is an invaluable factor in the fight against consumption.

At the same time it must be admitted that the roots of tuberculosis have penetrated deeply in this community and that much more than dispensary or sanatorium treatment is required. First and foremost improvement will come when the housing conditions of the people are on a proper basis, when overcrowding is remedied and cases now breeding infection in 1 or 2 roomed houses can be isolated properly in their own homes. Not only must the people be better housed but their homes must be used in a hygienic way. Infection must be controlled, one regrettable feature of this district being the frequency with which one sees sputum undistinguishable from tuberculosis sputum lying about in the streets.

The municipality can help to reduce tuberculosis mainly by pressing forward their housing scheme, and by taking steps that the younger generation is educated under hygienic conditions in new schools where necessary, the tuberculous and pre-tuberculous children being placed absolutely under open air conditions.

THE ACUTE RESPIRATORY DISEASES.

(A). INFLUENZA.

In the early part of 1920 the Ministry of Health anticipated a recrudescence of the influenza epidemics of 1918-1919. Profiting from their previous experience municipalities were recommended to have in readiness anti-influenzal schemes suitable to their size. Accordingly a complete scheme on the Ministry's lines was prepared and approved by the Council. Fortunately influenza did not materialise and the scheme did not require to be put into operation. The ground work, however, remains for any future emergency.

Influenza caused 7 deaths during 1920, all from influenzal pneumonia; 4 of the deaths occurred in December marking a distinct increase in the number of mild cases of influenza towards the end of the year.

(B). BRONCHITIS AND PNEUMONIA, INCLUDING INFLUENZAL PNEUMONIA.

(a). Notifications of Pneumonia, including Influenzal Pneumonia.

Month	Age								Total	Ward						Total,
	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65-over		North	South	East	West	Grange	Central	
January	..	..	1	...	3	3	6	...	...	13	4	5	...	1	3	...	13
February	...	3	1	6	1	1	2	...	1	15	3	3	3	1	1	4	15
March	.....		5	7	2	4	2	3	1	24	3	3	9	3	3	3	24
April	.....		1	4	1	3	2	...	1	12	...	3	5	1	...	3	12
May	.....		2	1	3	...	1	2	...	9	3	1	1	1	.....		9
June	.....			1	...	1	4	1	...	7	1	1	2	...	2	1	7
July	.....		3	1	...	2	2	...	1	9	...	3	3	2	1	...	9
August	...	3	...	1	1	3	7	...		15	3	1	4	3	...	1	15
September	...	4	1	...	2	1	2	...	1	11	2	2	1	3	1	2	11
October	...	7	4	6	1	2	2	...	1	23	3	1	5	6	2	6	23
November	...	19	12	12	6	2	3	.....		54	14	10	18	4	1	7	54
December	...	8	7	2	6	1	6	2	2	34	11	6	6	6	3	2	34
Total	...	44	37	41	26	23	39	8	8	226	17	18	57	31	17	26	226

(b). Deaths from Acute Respiratory Diseases (Pneumonia and Bronchitis), with Ages, Wards, and Months.

Month.	Age.							Total	Ward						Total.
	Under 1	1-5	5-15	15-25	25-45	45-65	65-over		North	South	East	West	Grange	Central	
January ...	3	...	...	1	1	1	2	8	1	1	3	2	...	1	8
February ...	4	2	...		3	1	4	14	3	1	4	2	3	1	14
March ...	6	6	1	...	1	3	4	21	5	6	5	1	3	1	21
April ...	2	2	1	1	...	2	3	11	1	1	3	1	...	5	11
May ...	5	3	1	1	1	3	...	14	3	1	1	2	2	5	14
June ...	1	2	1	...	1	4	6	15	4	...	1	3	2	5	15
July ...	...	1	...	...	1	...	2	4	...	2	...	...	...	2	4
August ...	1	1	...	...	...	2	4	8	1	...	2	4	...	1	8
September ...	2	1	...	1	...	1	4	9	2	1	...	1	1	4	9
October ...	1	3	...	...	...	1	3	8	3	1	1	...	2	1	8
November ...	6	2	1	1	1	4	2	17	5	3	3	1	2	3	17
December ...	7	2	1	1	2	3	...	16	5	2	6	...	1	2	16
Total ...	38	25	6	6	11	25	34	145	33	19	29	17	16	31	145
Rate per 1000 ...									6·4	2·2	5·4	2·6	2·4	5·5	

The mortality from respiratory disease has been commented on in many previous reports. The 1920 statistics afford no exception in the necessity for this. Compared with the past 5 years the figures are :—

Year.	Deaths from Bronchitis and Pneumonia.	Rate per 1000.
1920	145	3.8
1919	149	4.1
1918	128	3.7
1917	108	3.
1916	157	4.2
1915	173	4.8

Looking at the figures for 1920, 63 of the 145 deaths occur in children under the age of 5. The worst housed wards, the North, Central and East have the highest death-rates working out at 6.4, 5.4 and 5.5 per 1000 respectively, which are more than double the rates recorded in the other wards.

It is unnecessary to go into the main causes of this excessive mortality for I am convinced that they are similar to those responsible for the high mortality from tuberculosis, with one additional factor probably, that pneumonia exacts a heavier toll from males than from females, owing to the arduous work of iron workers at high temperatures

with subsequent exposure to cold. The proper nursing, too, of cases of pneumonia at home under the present housing conditions is a matter of grave difficulty, and must in many cases prejudice the issue.

Speaking generally, the excess in the local death-rate over the general death-rate for England is largely accounted for by the high death-rate from respiratory diseases, which if pulmonary tuberculosis be included, amounts to 5.3 per 1000.

OTHER NOTIFIABLE DISEASES.

(A). ERYSIPELAS.

During 1920 there were 42 notifications with 6 deaths.

(B). PUERPERAL FEVER. OPHTHALMIA NEONATORUM.

See section on Maternity and Child Welfare.

(C). ENCEPHALITIS LETHARGICA.

During 1920 there were three notifications with one death. This disease "Sleepy Sickness" in the press, has received much public attention during the past year. From intensive study of many cases it has been established that its infectivity and mode of spread are probably by the discharges of the nose and throat, the most likely sources of infection being carriers. The danger of spread from one case to other members of the family is but slight, nor is there any sign of the disease becoming epidemic.

This general experience fully accords with our local cases, which have been purely sporadic. At the same time all the precautions customary in infectious cases have been observed.

(D). POLIOMYELITIS.

One case was notified with fatal issue during 1920.

(E). MALARIA.

Six cases were notified, one dying from chronic malaria with cirrhosis of the liver. In each case the disease had been contracted abroad.

(F). CHICKEN POX.

55 cases were notified during 1920. In view of the frequency of sporadic cases of small-pox throughout the country it is advisable to keep this disease on the list of notifiable diseases for the present.

(C). DYSENTRY.

No cases were notified.

(H). INFANTILE DIARRHŒA.

See section on Maternity and Child Welfare.

NON-NOTIFIABLE INFECTIOUS DISEASES.

MEASLES, WHOOPING COUGH, MUMPS.

During the year all cases of whooping cough, mumps, measles and chicken-pox among children of school age have been notified either by Head Teachers or School Attendance Officers with the following results :

Diseases.	Notifications.
Measles—German Measles	170
Whooping Cough	173
Mumps	52
Chicken-Pox	129

As regards Measles and Whooping Cough official information is wanting at the ages of greatest mortality, under five years of age, but notifications among school children often lead to the discovery of other cases among the younger children. There was 1 death from measles in the group aged 1 to 5 years. There were 12 deaths from whooping cough, all under 5 years of age, causing a death-rate of .32 per 1000 as compared with the rate of .11 for England and Wales.

During 1920 measles was not epidemic nor were the cases which came to the knowledge of the Health Department of a serious type or accompanied to any extent by chest complications. At the same time both in measles and whooping cough the health visitors by means of personal instructions and pamphlets advise parents as to the risk of pneumonia and as to the best means of nursing the children. Home nursing was also carried out in suitable cases.

OTHER CAUSES OF DEATH.

I. CANCER.

This caused 43 deaths, equivalent to an annual death-rate of 1.1 per 1000. The deaths for the past six years were :—

1915	29
1916	27
1917	32
1918	31
1919	39
1920	43

It will be noted that the deaths attributed to cancer tend to increase within recent years, a fact which is noted in the vital statistics of most communities.

II. ORGANIC HEART DISEASE.

During 1920 various forms of Heart Disease accounted for 42 deaths, equal to a death-rate per 1000 of 1.1.

During the past six years the deaths from this cause were :—

1915	45
1916	52
1917	47
1918	33
1919	39
1920	42

III. DEATHS FROM VIOLENCE.

1915	26
1916	18
1917	16
1918	22
1919	23
1920	28

SECTION 2.

Sanitary Circumstances of the District.

(1). WATER SUPPLY.

The water supply from the Sunderland and South Shields Water Company is ample and constant, although at present in many of the tenemental houses both tap and gulley (there is usually no sink) are in the yard and common to all the tenants of the yard. The following report, recently received, shows the excellence of the water from a public health standpoint, although its hardness makes its use for washing purposes costly and troublesome :—

March 24h, 1921.

Sunderland and South Shields Water Company.

The water supplied to the district is of an exceptionally high degree of purity and is one of the finest drinking waters in the country.

Chemical analysis shows that the water practically does not vary from year to year, whilst bacteriologically it is of the highest quality.

Frequent and systematic examinations of the water from all the wells and reservoirs are made to ensure that the water actually supplied is free from any harmful matter.

The water is pumped from the wells in the Magnesian Limestone at a depth of from 200 to 500 feet, and Jarrow is supplied from the following wells : Thorpe, Shotton, North Dalton, Seaton and Stonygate.

The wells are lined out to a considerable distance in order to exclude surface drainage.

Analytical results of the water supplied are as follows:

Total Solids	48.60
Chlorine	4.30
Total Hardness ...	26°.9
Free Ammonia	Nil
Albuminoid Ammonia	0.0001
Nitrites	Nil
Lime (CaO)	12.40
Magnesia (MgO)	7.54
Sulphuric Acid (SO3)	5.24
Carbonic Acid (CO2)	12.98

(Results in parts per 100,000, Hardness in degrees.)

Bacteriological Results.

Organisms growing at 37°C	3
,, ,, ,, 21°C	10

No B.Coli, Streptococci, nor Enteritidis Sporogenes were detected in 100 cubic centimetres of the water.

It is intended in the near future to supplement the supply from the well waters with a soft water from gravitation sources from the upper reaches of the River Wear.

II. RIVERS AND STREAMS.

The River Don, which centuries ago was a considerable river, but is now a small sluggish stream, skirts the south and east wards and flows into the Jarrow Slake at the east end of the Borough. The Don within the Borough practically acts as an open sewer, receiving the effluent from a paper mill, and a considerable amount of sewage both from Jarrow and also the Boldon sewer, which enters it near the paper mill. Although the tides reach well up the Don an offensive odour can frequently be detected especially in warm weather. The Slake, a wide expanse of mud at low tide, but covered at high tide also smells badly. Another factor, however, in causing the smells detected in this area is stated to be the deposits from chemical works although these have ceased working for many years.

The establishment of oil reservoirs for Tyne shipping at the east end of Jarrow will in all likelihood make an improvement in the condition both of the Don and of the Slake necessary. When the sewerage of the Borough is reconstructed it would, if possible, be very desirable to pipe all the sewage directly into the Tyne.

III. DRAINAGE AND SEWERAGE.

Of the town's sewers, 4 enter the Tyne direct on the north aspect of the town, while 3, as already stated, and in addition the Boldon sewer, enter the Don. After heavy rainfall the sewers are not adequate at certain points, especially the bottom of Hill Street and Albert Road, to remove the storm water. Several of the sewers are old, and I understand not up to modern requirements as regards size and construction.

The introduction of the water carriage system in place of the present ash closets must inevitably be faced in the future, and this will undoubtedly entail a thorough investigation into the adequacy of the sewage system.

IV. CLOSET ACCOMMODATION.

The box ash-closet is the prevailing type, all privy middens having been converted into the above or into water closets.

Total ash closets in Borough	4900.
Total water closets in Borough	858.
Total ash closets converted into water closets in 1920...	18.
Total ash closets converted into water closets since 1913...	58.

It is unnecessary to go into the arguments in favour of conversion to water carriage as soon as economic conditions will permit. Further consideration is given to the subject in the Housing Section of the report. The heavy death-rate from Infantile Diarrhœa in hot and dry years is intimately connected with this system, nor will the menace of typhoid fever be removed while the system stands.

V. SCAVENGING.

The Scavenging of the Borough is in the Department of the Borough Surveyor. The ash-closets are emptied once a week and the night-soil, along with the contents of the ashpits, is taken out to sea. In bad weather the hopper is unable to do this, and the night-soil has to be left at the quay until the sea abates, a most objectionable feature.

A certain amount to refuse from shops is burnt at the incinerator also at the quay.

During the year 17 complaints with regard to full closets were received and transmitted to the Borough Surveyor for necessary action.

The irregularity of the cobbles in many back lanes especially in the east, central and north wards makes satisfactory sweeping and cleansing difficult especially in wet weather.

VI. SANITARY INSPECTION OF THE DISTRICT.

The following table shows the large amount of useful work undertaken by the Chief and the Assistant Sanitary Inspector during 1920 :-

Summary of Work done by the Inspector of Nuisances Department during 1920.

I. PUBLIC HEALTH ACTS	Number of Visits paid for inspection.	Number of informal notice by the Inspector.	Number of Formal Notices by order of Authority.	Number of Nuisances abated after notice.
Dwelling-houses –				
Foul Conditions	76	76	..	76
Structural Defects	100	204	22	204
Overcrowding	..	..	..	..
Lodging-houses	872	18	..	18
Dairies & Milkshops	250	..	..	..
Cowsheds	8	4	..	4
Bakehouses	50	28	..	28
Slaughter-houses	700	50	..	50
Ashpits and Privies	..	..	..	..
Deposits of Refuse and Manure	12	12	..	12
Waterclosets	38	8	4	8
Defective Yard Paving ..	60	17	..	17
House Drainage—				
Defective Traps	280	4	1	4
No disconnection from Sewers	..	..	..	..
Other Faults	90	179	14	179
Water Supply	80	23	5	23
Pigsties	20	..	..	..
Animals improperly kept ..	20	3	..	3
Offensive Trades	40	..	..	..
Smoke Nuisances	60	1	1	1
Other Nuisances –				
Repair Boxclosets	300	212	17	212
Limewash Passages and Staircases	902	500	..	500
Remedy Flooded Boxclosets ..	280	*	..	..
Leaking Setpots	40	*	..	..
Cleanse Dirty Yards and Closets	250	*	..	..
TOTALS	4528	1339	67	1339

*Remedied after personal visits.

II. Precautions Against Infectious Disease.

Nature of Work	No. of Cases	No. of Visits paid to premises
(a) Lots of Bedding stoved or destroyed ...	440	440
(b) Houses Disinfected after Infectious Disease	433	
(c) Schools Disinfected after Infectious Disease	6	6
(d) Investigation of cases of Infectious Disease		
(a) Where case was moved to the Isolation Hospital ...	219	219
(b) Where case was Isolated at home	478	478
Total ...	1576	1143

Total Number of Visits paid to premises 5595.

Signed—J. S. CALLIS, A.R.S.I.,

Chief Sanitary Inspector.

VII. PREMISES AND OCCUPATIONS WHICH CAN BE CONTROLLED BY BYE-LAWS OR REGULATIONS.

(a). Lodging Houses.

The 9 lodging houses of the Borough, 7 for males only and 2 for persons of both sexes can accommodate 450 lodgers. Only one of the houses has been built as a lodging house, all the others being converted dwelling houses of a poor type. Several years ago, however, their sanitary condition was much improved by the Council's action in having water closets, wash hand basins and urinals inserted.

The Sanitary Staff have paid numerous visits during the past year and generally found the lodging houses were being conducted in a satisfactory manner. There has been no congestion as many of the lodger type take advantage of Palmer's Hostel at Hebburn. No outbreaks of infectious disease have been traced to lodging houses during 1920.

(b).	Slaughter-houses ...	25	See section on food.
(c).	Dairies	5	
	Milkshops	118	
	Cowsheds	1	

(d). Offensive Trades.

(1). Tripe Boiler.—One offensive trade only is registered that of a tripe boiler at the Pit Heap. The premises, which are old and unsatisfactory, are kept under close supervision by the Sanitary Staff. As soon as a public abattoir is established this business should be transferred to the abattoir where it could be carried on under supervision in up-to-date premises.

(2). Fried Fish Shops.—The condition of the fried fish shops, especially as regards causing nuisance from smell, was investigated and reported upon by the M.O.H. during 1920. Many of the cooking arrangements are crude, being open and without any hood to remove the fumes, and undoubtedly pollute the atmosphere unnecessarily. The general arrangements and cleanliness in other premises were below a reasonable standard. In view of this report the Council has adopted the Model Bye-Laws of the L.G.B. relating to Fried Fish Shops, although the necessary arrangements for bringing them into force have not yet been completed.

(e). Houses Let in Lodgings.

Houses sub-let or taking in lodgers have increased greatly during recent years for reasons stated fully in the Housing Section. At the present moment it is practically impossible to control overcrowding in such cases, but as soon as the housing situation is eased steps should be taken to reduce their number. The recent bye-laws published in the manual of unfit houses might then be put into operation. Their adoption would entail a great amount of additional work, more than the present inspectors could overtake, so much so that an additional sanitary inspector would be required.

VIII. SCHOOLS.

The general sanitary conditions as regards cleanliness of class rooms, cloak rooms and lavatories, also the water supply of the schools continue to be satisfactory.

At the risk of repetition I would again refer to the prevalence of tuberculosis in this town, in which school children (vide statistics) take their due share. The period of school age, 5-14 plays a very important role in determining a child's resistance against tuberculosis. For that reason it is of prime importance that the school time should be spent under the very best of hygienic surroundings, which certainly the oldest of our schools do not supply, e.g. St. Peter's, the St. Bede's Senior Boys, and St. Bede's Infants. These schools will not go indefinitely and, when economic considerations permit, the new schools should be built on as open air lines as possible under a better environment.

During the past year a start has been made in making up the arrears, due to the war, of colourwashing, painting and general repairs, though much remains to be done.

Closure of schools was not necessary for infectious disease during 1920. Mention has already been of the incidence of Scarlet Fever, Measles, Whooping Cough and Mumps in the schools.

IX. OTHER SANITARY CONDITIONS REQUIRING NOTICE.

Cinemas and the Theatre.

In accordance with Circular 120 dated 25th August, 1920, from the Ministry of Health, the three cinemas and the theatre have been kept under regular supervision by the Sanitary Staff. With the approval of the Council certain recommendations relating to improvements in ventilation and the provision of adequate lavatory accommodation for the sexes were sent to the Licensing Authority. These recommendations have been acted upon and in the case of the cinemas directions have been given to put the matter right during 1921.

Undoubtedly the proper ventilation of cinemas is of great importance to the public health, from the point of prevention of infectious diseases spread by coughing and sneezing, especially influenza, whooping cough and the common cold. For proper ventilation two things are necessary, firstly sufficient inlets for fresh air, preferably warmed, the supply to be constant, and not liable to be shut off by the attendants or audience, and secondly sufficient outlets for foul air, the only adequate means of expulsion being by a powerful electric fan sufficient to change the air of the hall three times in one hour. Our recommendations have been based on these principles.

SECTION 3.

FOOD.

(a). MILK SUPPLY.

There are 2 dairy farms, 5 retail and wholesale dairies, and 118 registered milk shops, all of which are regularly visited by the Sanitary Staff in pursuance of the Dairies, Cowsheds, and Milk-shop Orders (see page 30).

The milk supply appears on the whole to be adequate for the requirements of the population although the high price has restricted the demand. Only a small proportion of the milk is produced in the immediate neighbourhood, most of it coming by rail from places as far distant as Carlisle and York.

No action has been taken during the year with regard to tuberculous milk. During the year two milk-shops were struck off the register owing to cases of tuberculosis being discovered in the family of the milk seller.

Attention is again drawn to the preponderance of milk retailers in small shops and ice-cream vendors selling milk as a side line with other goods such as vegetables, fruit, groceries and sweets stored beside promiscuously and all tending to pollute the milk. Such milk cannot be fresh or wholesome if kept for any length of time. These little shops are difficult to keep under adequate supervision and are quite unsuitable for the purpose. This type of shopkeeper is often ignorant, having little or no comprehension of the hygienic side of the milk trade. It would be no hardship for the public and would be of advantage to the public health if the retailing of milk were confined to properly equipped dairies, dealing with moderately large quantities of milk which could be properly supervised.

The attention of the larger dairies was drawn to the government circular dealing with the selling of graded milk under certificate but no action has yet been taken, probably owing to its increased cost and consequent lack of popular demand.

MILK AND CREAM REGULATIONS, 1912-1917.

During 1920 no action was taken under these regulations. No preservatives were found in any of the 19 samples of milk analysed.

MILK (MOTHERS AND CHILDREN'S ORDER), 1918.

Dried milk at cost price, reduced and free has been distributed through the two Infant Welfare Centres during 1920. The details as to cost and amount of dried milk distributed are given in the Maternity and Child Welfare Section. The choice of dried in preference to fresh milk has been deliberate, as any advantage obtained by the use of fresh milk by the poorer classes is completely nullified by the numerous opportunities of contamination provided in transit, handling in dairies or the small milk-shops or in storage in the home. Fresh cow's milk as generally used is undoubtedly a potent factor in the causation of tuberculosis and epidemic diarrhœa among children. Both of these dangers are avoided by the use of dried milk, which is largely germ free, and is further sterilised by its preparation with nearly boiling water. The results obtained have been uniformly good, judging especially by the excellent progress of many infants entirely reared on dried milk.

(b). MEAT INSPECTION.

Condition of Slaughter Houses, etc.

	In 1914.	In Jan., 1920.	In Dec., 1920.
Registered slaughter houses	2	2	2
Licensed ditto	23	23	23
	25	25	25

Meat inspection has been carried out regularly by the Sanitary Staff. During the year 3 carcases weighing 2240 lbs. were found to be tuberculous, were condemned as unfit for human consumption and destroyed under Sect. 117 P.H. Act, 1875. No public abattoir has been established in the district. It is necessary, therefore, for the Sanitary Inspectors to visit all the existing slaugher houses as far as possible on slaughering days, but, as these number 25, this is a physical impossibility. The butchers, however, are generally anxious to call attention to any suspected carcase, a fact which is of considerable help. The want of a public abattoir is a distinct menace to the public health, as it is not right that the onus of discovering tuberculosis or other disease in meat should be thrown even to the slightest extent on the slaughtering butcher.

Of the 25 private slaughter houses, including 7 pork butchers, 3 use the front shop, 18 the back premises and 4 are slaughter houses apart from shops. All slaughter houses have dwelling houses either adjacent or overhead, both objectionable features. The slaughter houses are on the whole managed as efficiently as their limitations permit. Several of

the pork butchers' slaughter houses are below any reasonable standard, being back premises to the shops and very cramped.

(c). OTHER FOODS.

1. All premises engaged in manufacturing, preparing, storing or exposing food for sale are under the supervision of the sanitary inspectors who pay numerous visits.

During 1920 the following food stuffs were condemned as unfit for human consumption :

Total seizures of food—10.	
Tuberculous Beef 3 carcases	2240 lbs.
Rabbits	180 lbs.
Corned Beef	38 lbs.
Liver	60 lbs.
Boiled Ham	2 lbs.
Total	2520 lbs.

2. Bake Houses.

There are no underground bakehouses. The existing bakehouses, 14 in number were generally found in good order and being conducted in a cleanly fashion except in one instance where the complaints were remedied after informal notice.

3. Other Premises.

The pork shops, ice-cream shops, fried fish shops and green grocers' shops are in many cases of a poor standard and require much supervision, especially the smaller variety off the main streets.

(d). FOOD POISONING.

No cases of food poisoning have been reported in this district during 1920.

(e). SALE OF FOOD AND DRUGS ACTS.

49 samples of milk and 1 sample of vinegar were taken for analysis during 1920. Of the milk samples dirt was noted as being present in 7 cases and by order of the Council the vendors were warned, 6 were below normal slightly and 2 found definitely adulterated as regards the non-fatty solids.

The two latter cases were taken to court one case being fined £5 and the other dismissed. One vendor was summoned for refusing to sell a sample of milk to the inspector and fined £2.

SECTION 4.

Maternity and Child Welfare.

(1). INFANTILE MORTALITY DURING 1920 IN JARROW.

A. Comparison with Infantile Mortality in England and Wales for 1920.

	Rate per 1000 births.
England and Wales	80
98 Great Towns	85
146 Smaller Towns	80
London	75
JARROW	**84.8**

B. Comparison with previous infantile mortality in Jarrow.

	Rate per 1000 births.
JARROW—1920	84.8
1919	151.7
1918	117
1917	103.4
1916	108
1915	151
1911—1914	118
1901—1910	142
1891—1900	158
1881—1890	152
1871—1880	175

Consideration of the above tables shows that our infantile mortality in 1920—84.8 per 1000 births was by far the lowest ever recorded for Jarrow and was 42 points per 1000 births below the average, 126 per 1000, for the years 1915-1920. The figure combined with the high birth-rate of 34.8 per 1000 living naturally affords grounds for much gratification, tempered by the knowledge that the sanitary and housing conditions of the masses remain unchanged and also by the fact that one usually fertile source of our infantile mortality, epidemic diarrhœa, was conspicuously small in 1920, as the result partly of a cold and wet summer. At the same time the decrease corresponds with greatly increased infant welfare work and propaganda both in the clinics and in the homes which must have taken their due share in achieving the happy result.

(2). WORK OF THE TWO HEALTH VISITORS.

During 1920 a second health visitor was appointed. This enabled the health visitors to devote more time to secondary visits and also to break fresh ground in the way of starting mothercraft classes both at the clinic and for the elder girls in the schools and also in undertaking a certain amount of home nursing in special cases.

(a). Home Visits in 1920.

Primary visits	1544
Secondary visits	949
Ineffectual visits	269
Home nursing visits	197
Total visits	2959

It was possible to visit all babies notified during the year, the nurses timing their initial visit as nearly as possible to the 10th day after birth, often taking their case over from the midwife—the ideal method. The number of effective secondary visits—949—comes far below the desideratum of the Ministry of Health, namely **five** for the first year and **one** for each succeeding year of life up to five years. To attain that standard an additional health visitor must be appointed.

(b). Home Nursing.

In view of the lamentable mortality year by year from epidemic diarrhœa and pneumonia in Jarrow among infants arrangements were made for the nurses to visit all cases immediately on notification and to help mothers where necessary to carry out the doctor's instructions. During the year 197 home nursing visits were paid with great benefit in many cases. The work carried out included lavage of the bowel and preparation of suitable food in cases of infantile diarrhœa, and in pneumonia the making of pneumonia jackets and the general management of the nursing. Skilled help such as our nurses have provided is quite beyond the power of mothers of the poorer classes and must in many instances have influenced the favourable issue of the case. This is work which once begun must be continued and even developed.

(c). Mothercraft Classes.

At the Municipal Clinic	11
In the Schools	21

Classes in mothercraft have been instituted by the Health Visitors during 1920. At the Clinic they have been held once weekly with an average attendance of 12 to 15 mothers. The nurse commences by having a general talk, preferably choosing some subject brought forward

by one of the mothers or taking up some infant ailment which happens to be prevalent at the time such as whooping cough or diarrhœa. The mothers are encouraged to bring forward all their difficulties. Arrangements have been made to provide at cost price the best kinds of materials for babies' clothes. Patterns are given away or the material cut up at the class the mother taking the garment home to finish. A sewing machine has been provided. Tea is served at a nominal cost to cover expenses. Altogether the mothercraft classes have been a decided success.

At the schools the nurse takes a class of some 20 to 30 girls nearing the age of 14 over a series of 6 or 7 talks on various aspects of mothercraft work. A model outfit—including a life-sized doll with ideal baby's clothes, a cot fully equipped, and bath with proper fittings, etc., has been provided. The nurse takes the children over such subjects as proper clothing for baby, including cutting out and making, washing baby, baby's minor ailments, proper methods of feeding and the general hygiene of the home and of the baby. The girls are keenly interested and at the end of the course have shown how thoroughly they have absorbed the information given.

These mothercraft classes are propaganda work of first class importance and must be productive of much good.

(3). WORK AT THE CLINICS.

Statistics of Work during 1920.

	Municipal Clinic.	St. Bede's Clinic.	Grand Total.
Total attendances infants under 5	1705	1182	2887
Total attendances nursing mothers	966	603	1569
Total attendances infants under 5 (1st attendance)	557	191	748
Total attendances nursing mothers (1st attendance)	323	193	462
Total attendances expectant mothers	23	——	23
Number of times each clinic opened	98	45	133
Total number of infants and nursing mothers seen by medical officer	2506	1784	4290
Infants referred to their own doctor	8	2	10
Infants referred to hospital	9	2	11
Total entered under 1 year	453		
No. of these babies who died	24		
Death-rate per 1000 of these babies	54		
General Infantile Mortality all babies	84.8		

Both Infant Welfare Centres have been in active operation during 1920. A large proportion, more than 50% of all babies born have been taken to one or other of the clinics. The Municipal Centre is open twice weekly and is staffed entirely by the Health Department, the Medical Officer of Health, the two Health Nurses and a clerk being in attendance. The St. Bede's Centre is managed by a committee of ladies, several of whom attend each week while the M.O.H. and one of the Health Nurses supervise the medical work. The clinical methods and administration of both clinics have been developed on similar lines, overlapping being avoided. In accordance with the recommendations of the Ministry of Health the first place is given to teaching and propaganda work generally. Healthy children are encouraged to be brought at regular intervals for weighing and advice. Debilitated and weakly children are given special attention as regards management and diet, with most encouraging results in many instances. Children who are obviously ill are referred to their own doctor and where necessary to hospital.

It is noteworthy that the death-rate among the 453 infants under one year who attended the municipal clinic was at the rate of 54 per 1000 births as compared to the general infantile mortality of 84 per 1000 births.

Part of one session weekly at the Municipal Clinic has been devoted to ante-natal work. During the year 23 expectant mothers attended and were advised, the midwife being notified of any abnormality. The growth of ante-natal work generally lags behind that of Infant Welfare, and would be greatly stimulated by the provision of a Maternity home with which it would be naturally linked up.

DEVELOPMENT OF THE MUNICIPAL CLINIC.

The whole of the Ellison Street premises is now available for health purposes. It is proposed to run a joint scheme with the local educational authority, whereby the two first floor rooms will be transformed into a school dental clinic, one of the rooms being available as required for infant welfare work. This will give the additional room badly required for clinic days, when as many as 30 mothers with one or often more children may be present. The Health Authority also proposes to carry out certain alterations in the ground floor including the concreting of the front yard, the provision of a water closet and the painting of the premises.

The combined scheme is at present under consideration by the Ministry of Health and the Board of Education and will be carried through when their sanction is obtained.

(4). WORK OF VOLUNTARY SOCIETIES.

Mention has already been made of the work of the St. Bede's Committee of 17 ladies. At the centre three members attend regularly each week and render valuable aid by looking after the mothers, keeping the registers and giving teas. In addition they look up mothers at their homes who have dropped attendance, and do all in their power to foster the work among the poorest and most ignorant type of mother in the town.

(5). DISTRIBUTION OF DRIED MILK, ETC.

Sold at Cost Price	2604 lbs.
Sold at reduced price	955 lbs.
Distributed free	579 lbs.

By resolution of the Council it was decided, during 1920, with the sanction of the Ministry of Health, to spend not more than £130 in the distribution of dried milk cost price, reduced or free as required. The cost during the year has worked out approximately at £100.

Every care is taken to investigate the economic circumstances where relief is given, the scale adopted by the County of Durham being worked to.

As a result of our experience the utmost confidence may be placed in dried milk as a substitute for mother's milk when unfortunately that fails. We have also found considerable advantage in its use by nursing mothers with failing breast milk also expectant mothers and older infants, especially if threatened with wasting disease or rickets. Dried milk is of first class importance as a preventative of diarrhœa during the hot season, in preference to the dangerous liquid sold in the name of pure milk in the small shops in our side streets. Indeed, the increasing use of dried milk was probably a contributory cause to the low incidence of that disease in 1920.

(6). CO-OPERATION WITH THE SCHOOL MEDICAL SERVICE.

(a). Mothercraft Classes.

Reference has already been made to this valuable propaganda work.

(b). Infant Welfare Records.

In the future it is hoped to pass on the records of children from the Infant Welfare Centre to the School Clinic.

(7). UNMARRIED MOTHERS. CHILDREN TEMPORARILY DEPRIVED OF A HOME.

During the year 55 births of illegitimate children, with 7 deaths, a rate of 127 per 1000 births, were notified. Several of these children have

attended the clinics and in every case special attention has been given, in view of the high mortality usual among such children. In 1919 the mortality was 15 deaths among 45 births a rate of 333 per 1000 births. Where institutional treatment is desirable, arrangements as a rule are made for unmarried mothers to go to the Harton Union Infirmary. In one case a mother and child temporarily deprived of a home were sent to a Newcastle Hostel, where the mother was allowed to work and at the same time was able to nurse her baby.

(8). NOTIFICATION OF BIRTHS. MIDWIFERY SERVICE.

During 1920 under the Notification of Births Acts the following notifications were received :—

	Births.	Still Births.	Percentage Still Births.
From Medical Men	487	16	3.2
From Midwives	802	24	2.9
	1289	40	3.1

The total number of births not notified was 21, so that 99.4 per cent. of all the births were notified under the acts. All still births reported by midwives were visited by the Health Visitors.

The following were the notifications of births according to midwives :-

Midwife A	350	No Certificate by examination.
Midwife B	90	do.
Midwife C	6	C.M.B.
Midwife D	23	L.O.S.
Midwife E	34	C.M.B.
Midwife F	100	No Certificate by examination.
Midwife G	208 for 6 months.	L.O.S.

We have been in touch with Midwife A who has undertaken too much work, and is quite willing to pass on cases to other midwives not overworked. We have also been closely associated with the County Inspector of Midwives in disciplinary action affecting the service. On the whole, with the better distribution of work now obtained, and by the addition of a certified midwife during the year, the work undertaken by midwives is tending to improve.

(9). PROVISION OF MATERNITY HOME.

The Council in December, 1919, approved the principle of a small Maternity Home, with the provision of Municipal Midwifery Service,

All efforts to find an existing house of a suitable character having failed, on the recommendation of the Ministry of Health it was agreed to approach the County of Durham for the use of 6 beds in their proposed Maternity Home at Pelaw. The County Authority at first was perfectly willing to approve a joint scheme, but recently owing to their scheme having to be restricted the Jarrow Council have been informed that a joint scheme cannot be considered. Under the existing economic circumstances a local Maternity Home with provision of Municipal Midwifery Service in the homes may have to be postponed. At the same time, any delay is greatly to be deplored for the following reasons :—

(1). The continued high mortality from the group of diseases debility, prematurity, etc., causing, in 1920, 40 deaths out of 110, 34 of these deaths being in the first month of life.

(2). The prevalence of overcrowding, not likely to be relieved for a considerable time, in houses quite unsuitable for confinements.

(3). The advanced age of two of the present midwives, who cannot be expected to continue work very much longer.

10. INCIDENCE OF CERTAIN DISEASES RELATING TO MOTHERS AND CHILDREN.

Table showing the three main causes of Infantile Mortality.

Cause of Death Under 1 year of age	Distribution according to Age										Distribution according to Wards						
	Under 1 wk.	1-2 weeks.	2-3 weeks	3-4 weeks.	Under 1 mth.	1-3 months.	3-6 months	6-9 months	9-12 months	Total under 1 year	North.	South.	East	West	Granpe.	Central
Diarrhœa ...	...	...	...	1	1	...	2	...	...	3	...	...	1	1	1	...
Enteritis ...	...	...	...	1	1	4	2	...	...	7	1	2	2	1	1	...
Congenital Malformations	...	1	...	...	1	...	...	...	...	1	...	...	1	...	...	...
Premature Birth ...	16	1	2	1	20	1	...	...	...	21	6	5	1	5	...	4
Atrophy, Debility and Marasmus ...	7	2	2	...	11	...	5	2	...	18	5	2	5	4	...	2
Bronchitis ...	...	...	...	...	...	1	1	1	2	5	1	...	2	...	...	2
Pneumonia, all forms ...	...	1	...	...	1	3	9	11	9	33	7	6	9	3	4	4
Total from above ...	23	5	4	3	35	9	19	14	11	88	20	15	21	14	6	12
All deaths from other causes	5	2	...	...	7	5	4	2	4	22	1	7	3	1	4	6
Grand Total ...	28	7	4	3	42	14	23	16	15	110	21	22	24	15	10	18
Infantile Mortality according to Wards ... 84·8											99·5	82·7	103	94·3	68·	42·3

A. Epidemic Diarrhœa.

During 1920, 10 children under 1 year and a total of 16 children under 2 years died from epidemic diarrhœa or enteritis. As compared with some previous years this is a favourable result, e.g. :—

Year.	Deaths.	Year.	Deaths.
1913	32	1917	13
1914	31	1918	13
1915	35	1919	39
1916	7	1920	16

In view of the previous high mortality from this disease among our children epidemic summer diarrhœa was made compulsorily notifiable from July to October inclusive, the following being the notifications :—

	0-1.	1-2.	2-5.	5-15.	Total.
July	7	6	4	2	19
August	5	—	4	—	9
September	6	10	8	2	26
October	4	7	—	—	11
	22	23	16	4	65

Every assistance practicable was rendered in each case by the provision of home nursing, where necessary, visits by the Sanitary Inspectors, supply of disinfectants, attention to the cleanliness of back yards and the storage of foods. I am satisfied as to the value of notification in infantile diarrhœa—in fact intensive preventive work and treatment are impossible without it—and recommend the continuance of the measure. The unusually cold and wet summer undoubtedly kept infantile diarrhœa within bounds both generally and in this town. This borough must face future epidemics from this source under the suitable fostering condition of a warm summer and autumn while the prevailing ash closet, overcrowding and low standard of domestic hygiene are allowed to exist.

B. Deaths from Premature Birth, Atrophy, Debility and Marasmus.

These fertile sources of infantile mortality were responsible for 40 deaths out of 110 (31 being in the first month of life), or 36% of the total, as compared with 30% in 1919. This appalling waste of life is largely preventable.

In seeking to reduce this type of mortality we must steadfastly look in the following directions :—

(a). Improvement in housing and general social conditions.

(b). Provision of a maternity home and improved midwifery service.

(c). Fostering of ante-natal work both in the homes and at the clinic.

C. Pneumonia and Bronchitis.

These were responsible for 38 deaths as compared with 51 in 1919 a welcome reduction, which is really greater than it looks as there was an increase of 300 births in 1920. All cases of pneumonia are visited by the Health Nurses. Where the home conditions are bad and the mothers ignorant of nursing, home nursing services are rendered. This, I believe, may easily make a difference between life and death in a critical case.

D. Puerperal Fever.

7 cases were notified and visited by the Health Visitors, there being 3 deaths.

E. Ophthalmia Neonatorum.

5 cases were notified, all being visited several times by the Health Visitors. All recovered without ill effects in the eyes.

F. Measles.

No deaths were reported among infants.

G. Whooping Cough.

5 deaths in infants under 1 were reported, all cases being visited by the Health Visitors.

SECTION 5.

Pravalence of and Control over Infectious Disease.

Various matters raised under the above heading have already been dealt with under the particular disease, and need not again be repeated, viz. :—

Use of diphtheria anti-toxin.

Scarlet Fever.—Increased prevalence during 1920, and return cases.

Prevalence of pneumonia.

Incidence of malaria.

Incidence of encephalitis lethargica.

Vaccination statistics for 1920.

Non-notifiable infectious diseases.

Incidence of influenza during 1920.

A consideration of the statistics already given shows that beyond an increased prevalence of scarlet fever this district suffered from no severe epidemics during 1920.

Cleansing of Verminous Persons.

The district has no public cleansing station. In such cases disinfectants and soap are supplied, and when necessary action is taken through the Public Health Acts. The disinfecting station at the isolation hospital is available for the steam disinfection of clothing.

Notification of Tuberculosis.

The requirements as to notification of tuberculosis are carefully observed by all medical practitioners in the district.

Bacteriological Aids.

See under Sanitary Administration.

Dysentry, Trench Fever.

No cases were notified.

ISOLATION AND DISINFECTION.

Cases of scarlet fever, diphtheria and enteric fever are isolated at the Fever Hospital, also cases of cerebro-spinal fever, if there be accommodation. In addition, owing to the diphtheria wards being empty, it has been possible at times to offer accommodation for other diseases such as measles with pneumonia, influenzal pneumonia and epidemic diarrhœa. Every case is visited by a Sanitary Inspector who advises as to precautions and himself carries out the disinfection necessary at the house.

SECTION 6.

Sanitary Administration.

1. SANITARY STAFF.

No. of Staff.	Duties.
One.	Medical Officer of Health, School Medical Officer, Medical Officer in charge of Maternity and Child Welfare Work, Medical Superintendent Isolation Hospital.
One.	Chief Sanitary Inspector engaged in the general routine work of Sanitary Inspector, including supervision of office work, housing inspection, meat inspection, removal of infectious cases to hospital, etc., etc.
One.	Assistant Sanitary Inspector—principally engaged in housing inspection under Sect. 17 of the 1909 Act, and the 1919 Housing Act, also employed to assist the Chief Sanitary Inspector in the routine and special duties of his office.
Two.	Health Visitors engaged in Maternity and Child Welfare work.
One.	Clerk for Medical Officer of Health and Sanitary Inspector's Office.
One.	Clerk for Maternity and Child Welfare Centre and for School Medical Service.

2. ISOLATION HOSPITAL.

Accommodation for Infectious Diseases.

(a). Small-Pox.

The Borough of Jarrow shares with other neighbouring authorities the Small-pox Hospital of Harton which contains 30 beds, with possibilities of expansion. There were no cases during the past year.

(b). Other Infectious Diseases.

The Isolation Hospital at Primrose Hill consists of one large block, subdivided into two sets of two wards, each with their kitchen and sanitary offices. According to the standard of the Local Government Board these wards can only accommodate 12 adults, or probably 16-18 children. At present, therefore, only two diseases can be isolated properly at one time, allowing for adults of both sexes.

In addition, when the main block was insufficient to contain all the patients suffering from scarlet fever in April, 1920, the old iron and wooden building was put into order by replacing the corrugated iron roofing, repairing the heating and drainage arrangements and utilised for the less serious cases and convalescents. Although this building was practically condemned in 1914, sufficient work has been done to make it quite usable for a short period of years, although owing to the exposed position of the hospital it is not desirable to use it in winter. In any case the building is equipped, ready for any emergency, with accommodation for 12 adults or from 16-20 children.

STAFF -Medical Superintendent.
Matron.
One Staff Nurse.
Five Probationers.

HOSPITAL RETURNS, 1920.

Diagnosis on Admission	Remaining Dec. 31st, 1919	Admitted during 1920.	Total under treatment during 1920.	Died during 1920	Discharged during 1920	Remaining Dec. 31st, 1920
Scarlet Fever ...	12	192	204	5	193	6
Enteric Fever ...	...	4	4	...	4	...
Diphtheria ...	1	15	16	1	14	1
Total ...	13	211	224	6	211	7

Average duration of stay in hospital—27.67 days per patient.

SCARLET FEVER.

Reference has already been made under Vital Statistics to the increased prevalence of scarlet fever in 1920. During April the numbers increased so rapidly that it was necessary to utilise the old pavilion, the total cases remaining in the neighbourhood of 40 for about 2 months. In addition to the high number of patients, the proportion of severe and septic cases was more than normal, entailing a very severe strain on the matron and nursing staff. I pay high tribute to the efficient way in which all the emergencies of these months were met by all concerned.

Of 204 cases under treatment, 5 died, one after operation for mastoid abscess, one with mixed scarlet fever and diphtheria, and three with septic scarlet fever, the death-rate working out at 2.5% of the cases admitted.

As regards the cases it may be noted that 32 were desquamating on admission, 8 were diagnosed as suffering from other diseases, and 2 were admitted with the diagnosis of diphtheria. Kidney complications were rare, only two being noted, both on admission, nephritis and uraemia respectively. Two patients were transferred to hospital for operation for mastoid abscess, also one case suffering from acute tuberculosis for surgical treatment.

ENTERIC FEVER.

Of 4 cases admitted, the final diagnosis of enteric fever was upheld clinically and by widal examination in 1 case only, the other 3 cases being negative both clinically and bacteriologically.

DIPHTHERIA.

Of the 15 cases 8 were admitted as suffering from faucial diphtheria, 2 being finally diagnosed scarlet fever, and 1 a mixture of scarlet fever and diphtheria.

Of 7 cases admitted as laryngeal diphtheria the diagnosis was sustained in 3 cases. Tracheotomy was performed in 2 cases of which 1 died.

OTHER INFECTIONS—CHICKEN-POX AND GERMAN MEASLES.

During the early part of the year several cases of chicken-pox and german measles developed shortly after admission of the cases for scarlet fever. As the hospital was completely occupied at the time with scarlet fever ward segregation was impossible and consequently the infection of a proportion of the other cases who had not already had these diseases was inevitable. All cases were mild.

SUFFICIENCY AND CHARACTER OF HOSPITAL ACCOMMODATION.

The question of improving the present accommodation for infectious diseases has been dealt with in various reports, including the annual reports of 1914, 1919, and a special report issued in 1920. After consideration by the Hospital Committee, it was agreed that the Borough Engineer should prepare plans to remedy the main points at fault, viz. :—

(1). Insufficient Beds.

It was decided to have plans made for one large pavilion, with approximately 14 beds for adults and 20 beds for children, in place of the present wooden pavilion, whose period of usefulness is strictly limited.

(2). Absence of Isolation Beds.

It was decided to have plans made for a small isolation block of 6-8 single bedded wards, for the isolation of cases waiting diagnosis, mixed or complicated cases, and the rarer infectious diseases, e.g., cerebro-spinal fever.

(3). Deficient Accommodation for Staff and Administration.

Plans were to be made for an extension of the administration block, or a new building altogether, to remedy the present poor standard of housing for the nursing staff and the maids.

In addition the present laundry was to be enlarged by bringing in the mortuary and a store which are adjacent, and improved by the insertion of machinery.

(4). Sanitary Annexes, Main Block.

It was decided to have plans made for the erection of new sanitary annexes, in place of the present water closets, slop sinks and baths which are badly sited and out of date.

The consummation of this scheme would undoubtedly put the hospital on a sound basis, but it is obvious under present conditions that it must take a considerable time to mature. In view of the fact that the extension of the Borough will involve the erection of houses in the close neighbourhood of the hospital, and that the amount of space is strictly limited, it would be well to consider the advisability of erecting an entirely new isolation hospital in conformity with the town planning scheme. The present hospital could, without modification practically, be utilised as a maternity home and a children's hospital, both urgently required. (See section on Maternity and Child Welfare.) It is very doubtful whether the increased cost of a new hospital would be much greater than the cost of the very extensive additions and alterations previously outlined. In any case the improved and additional services to the public would more than repay this.

Ambulance.—During 1920 the Jarrow Ambulance Association generously handed over their excellent horse ambulance to the Corporation, thus solving happily the question of the provision of a new

ambulance. In addition the ambulance is now independent of the private contractor, as the Corporation supplies the horse.

Repairs, etc.—During 1920, as far as possible, all arrears of painting, colour-washing, plumbing, and building repairs, consequent on the war years were brought up to date, to the great comfort of the patients and the staff, and to the benefit of the hospital generally.

3. LOCAL ACTS.

The following is a list of the Local Acts, Special Local Orders and General Adoptive Acts in force in the Borough with regard to the administration of which during the past year no comments are called upon.

Local Acts.

41 & 42 Vict. Jarrow Improvement Act, 1878. (Ch. cxx.)

47 & 48 Vict. Jarrow Improvement Act, 1884. (Ch. cxxxiv.)

Special Local Orders (including Provisional Orders).

Jarrow Provisional Order of the 2nd April, 1879, amending the Jarrow Improvement Act, 1878.

Jarrow Provisional Order of the 16th May, 1899, amending the Jarrow Improvement Acts of 1878 and 1884.

The Jarrow Barbers' Closing Order, 1907.

The Jarrow Shops Half-Holiday Order, No. 1.

The Jarrow Shops Half-Holiday Order, No. 2.

The Jarrow Shops Half-Holiday Exemption Order, No. 1.

Joint Burial Committee of the Parishes of Monkton and Jarrow.

Appointment of Overseers and Assistant Overseers.

General Adoptive Acts in force in Borough.

Public Health Acts (Amendment) Act, 1890.

Public Health Acts (Amendment) Act, 1907.

Secs. 16, 20-30, 32-38, 45-50, 52-60, 62-65, 68, parts 5 and 6.

Secs. 79, 81, 84, 88, 89, 90, 93, 94 and 95, part 9.

4. BACTERIOLOGICAL EXAMINATIONS, 1919.

Bacteriological examinations from the Health Department and the Medical Practitioners of the Borough are made at the College of Medicine, Newcastle, without charge to the patient under the scheme of the Durham County Council.

During 1920, 76 specimens were examined with the following results :—

	Positive.	Negative.	Total.
Diphtheria	9	25	34
Tuberculosis of the Lungs ...	7	29	36
Enteric Fever (Widal).....	2	3	5
Wassermann Reaction	—	1	1
Totals	18	58	76

5. CHEMICAL EXAMINATIONS.

Samples taken under the Food and Drugs Act are sent to the Durham County Analyst for examination—see section under Food and Drugs Act, page 35

SECTION 7.

HOUSING.

(A). GENERAL HOUSING CONDITIONS IN DISTRICT.

(1). According to a census undertaken by the staff of the Borough Surveyor there were in the district, in Midsummer 1919, 7032 houses made up as follows :—

1 roomed houses	Number	345
2 roomed houses	,,	2020
3 roomed houses	,,	1941
4 roomed houses	,,	1420
5 roomed houses	,,	592
6 roomed houses	,,	355
7 roomed houses, and upwards	,,	359
Total		7032

The population for 1920 is estimated at 37,204 by the registrar-general but that number may be considerably modified by the census of 1921. The occupation rate works out at 5.2 per house, a significantly high figure in view of the large number of 1, 2 and 3 roomed houses.

(2). (a). Extent of Shortage of Houses.

(b). Measures taken or contemplated to meet any shortage.

Basing their calculations on the following factors among others :—

1. The present overcrowding.

2. The number of sub-let houses.

3. The number of recent marriages, where the newly married family lives with one or other of the parents.

4. The number of married ex-service men without homes.

5. Proposed works extension the Council considered in October, 1919, that approximately 1600 houses were required to meet the existing or future shortage of houses. This number, at the request of the Local Housing Commissioner, the Council has increased to 2072 with in addition 658 houses to replace demolitions in insanitary areas and individual unfit houses. The Council were urged by the Commissioner to consider 800 as the desirable quota for 1920. As a matter of fact, owing to many causes, legal,

financial and otherwise it was not possible to start active building work on the new site at Monkton until the end of December, 1919, when the first sod was dug of the first batch of houses—148—to be erected by contract. It is hoped to commence at least another batch of 148 houses by direct labour during 1921. The course of the new housing scheme, involving a vast sum of money, depends on many factors, the most important being finance, labour and material. We know now that the consummation of a total of over 2600 new houses will not be attained for some considerable period of years, even decades however desperate the need, or however urgent the remedy.

(3). Changes of Population Expected.

The floating population of Jarrow is determined largely by the current prosperity or otherwise of the shipbuilding trade and its subsidiary industries. At present we have entered a definite wave of depression, and one may naturally expect a considerable reduction among the unmarried labourer type, which will stop as soon as trade improves. The married labourer or skilled workmen who has a house in Jarrow, but goes to work elsewhere temporarily, generally leaves his family behind.

On the other hand, we believe that, some time ago, local firms of shipbuilders were preparing to extend their works and even to erect other works in the district. In addition, it appears definite that the east end of the Borough, adjoining the Slake, is to be used for the purpose of supplying oil fuel to steamers using the Tyne. This should bring both increased population and revenue to the town.

(B). OVERCROWDING.

(1). Extent.

(a). As a result of a census taken by the Borough Engineer's staff in midsummer 1919, the following figures were obtained as regards overcrowding, an overcrowded house being reckoned as one with more than two persons per occupied room :—

No. of Persons per room.	No. of Houses.	Total Population	
Under 1 person	2608 ...	8408	Not overcrowded
Over 1 under 2 persons ...	2607 ...	13557	
Over 2 under 3 persons ...	1179 ...	8339	Overcrowded
Over 3 under 4 persons ...	406 ...	3074	
Over 4 under 5 persons ...	100 ...	1523	
Over 5 persons	65 ...	508	

i.e., 13,450 persons or 35% of the population appeared to be living under overcrowded conditions in 1850 overcrowded houses

(b). Results of Inspection by Sanitary Staff.

In connection with three insanitary areas inspected during the year, the following results were obtained as regards overcrowding :—

Houses containing per room.	Old Church Area. No. of houses	Albion St Area No. of houses	Tyne St Area No. of houses	Total Houses not Overcrowded
Under 1 person	2	60	30	92
Over 1 under 2 persons	27	107	58	192
				284
				Total Over crowded
Over 2 to 3 persons	13	100	41	154
Over 3 to 4 persons	8	46	21	75
Over 4 to 5 persons	5	20	15	40
Over 5 persons	4	6	5	15
				284

In these areas therefore 50% of the houses were found to be overcrowded, many grossly so according to the Registrar-General's basis. As there is good reason to believe that a large part of the worst part of the Borough is similarly situated the estimate of housing needs does not appear exaggerated.

(2). Causes of Overcrowding.

The main causes of the overcrowding may be summarised as follows :—

(a). Reduction in the building of working class houses in the years prior to the war.

(b). Cessation of building during the war.

(c). Natural increase in population since last census probably about 4,000.

(d). Great boom in shipbuilding and ship repairing industries immediately following the war. The rebound has not yet made itself felt as regards population.

(e). Marriages of service and ex-service men without homes.

(3). Measures Taken or Contemplated with regard to Overcrowding.

The remedy of the existing overcrowding lies in the provision as rapidly as possible of the new houses but it is clear now that these cannot be expected in adequate numbers at an early date. In my opinion the immediate future as regards housing cannot at present be considered as anything but gloomy.

(4). Principal Cases of Overcrowding and Action.

The main cases have been found in the investigation of the insanitary areas as detailed above and in addition other cases have come to our knowledge on inspection of houses by complaint, 13 of these houses having been reported by the Tuberculosis Medical Officer as containing cases of tuberculosis. In view of the shortage of houses no action could be taken to provide new houses although there is a certain shuffling round of existing houses. It must be remembered that tenants with large families of young children are not the most popular with landlords.

(C). FITNESS OF HOUSES.

(1). (a). General Standard of Housing in District.

This for the working classes must be considered distinctly poor: the fact that 4306 houses or 61% of the total houses contain three rooms or less is sufficient proof of this. The average working class house of this type falls far below the desirable standard recommended in the manual of unfit houses of the Ministry of Health, one or more of the conditions mentioned in para (b) of this section being found in most working class houses. The houses represent a very inferior standard, even if new or in decent repair, but in addition many of them have been allowed to deteriorate seriously during recent years. In many of the one, two and three roomed houses the tenant shares a yard and box ash-closet with another tenant; he has no water or sink in the house, water being obtained from a common tap in the yard while slops are thrown into a gulley also in the yard. There is as a rule no pantry, in many of the houses hardly a proper cupboard. At the same time there exists a much better type of working class house of the tenemental type, built more recently of 3 or 4 rooms, with more modern conveniences, though unfortunately without water carriage. The 1306 houses with 5 rooms and upwards represent on the whole good class property, most being on the water carriage system, but the greater majority have a back yard and no garden.

(b). General Character of Defects found in Unfit Houses.

(1). Dampness—cause generally want of damp proof courses, defective roofing or pointing.

(2)). Defective lighting, due to dark stairheads or the bad siting of the houses, or want of window space.

(3). Defective ventilation, due to defective window cords.

(4). Defective ash closets—often shared with 2 or more families in a yard, the roof, door or seat being defective.

(5). Defective down spouting.

(6). Defective roofing.

(7). General disrepair of plaster, woodwork, floors, ceilings, fireplaces, yard cement.

(8). No pantry or proper storage for food.

(9). Defective wash-houses or coal houses.

(c). How far defects are due to lack of proper management and supervision by owners.

It is a matter of every day experience to find certain properties better managed than others, even though consisting of the same essentially bad type of house. During the war properties of the poorer class have been allowed to depreciate considerably owing to lack of labour and material. Since the war, labour and materials have both been very scarce and also very dear so that in the worst type of house adequate repairs, which almost involve reconstruction, have become extremely expensive, more so than the average owner cares to face. In addition, any far seeing owner must recognise that if the new building scheme proves successful properties of the slum type must disappear. Hence he is not likely to spend much money on such houses to secure a few years rent only.

Not all the fault should be ascribed to the owner or the agent. The careless tenant of the slum house may be as large a factor in causing its bad condition as the careless owner.

(2). GENERAL ACTION TAKEN AS REGARDS UNFIT HOUSES.

(a). Under Public Health Acts.

During 1920, 204 houses were reported as defective under the Public Health Acts, the defects being more or less those recorded in Section III. (1) (b). In 182 houses these defects were remedied as a result of informal notices or requests by the Inspectors and in 22 houses after a statutory notice had been served by Authority of the Council.

(b). Under the Housing Acts.

During 1920, 244 houses were inspected on account of complaints received, and notices to remedy defects found on inspection were served on the owners. Repairs more or less satisfactory have been carried out in 200 of these houses during the year. This figure must be regarded, in view of these difficult times, as eminently satisfactory and represents a great advance in the amount of repairs secured during recent years.

(3). DIFFICULTIES IN REMEDYING UNFITNESS.

The securing of repairs by means of the Public Health Acts or the Housing Acts is a tedious business, requiring the exercise of much patience and tact by the Sanitary Inspectors. The principle adopted has been to confine the number of housing notices in operation to such

a number as the inspector can keep under observation and report upon from month to month. Where owners appear dilatory in carrying out repairs, letters are written offering personal interviews to clear up any difficulties or debatable points. As a last resort the Council has intimated in certain cases the intention of carrying out necessary repairs and charging the cost under Sect. 28 of the Housing Act of 1919. Up to December, 1920, it had not been found necessary for the Borough Surveyor's Department to actually carry this threat into operation.

The ultimate solution of the housing problem remains difficult, as stated in last year's report. We are faced with a slowly developing new housing scheme and an overcrowded town of which 61% of the houses are 1, 2, or 3 roomed without any decent amenities. Presuming the housing scheme to develop at a more rapid pace, there can be no doubt that pari passu the worst of the slum properties, commencing with the areas represented under Parts 1 and 2 schemes should disappear, as soon as their occupants can be rehoused. Further, as the housing situation becomes eased in the future efforts should be made to see what can be done with the shells of the best 2 or 3 roomed tenements with a view to converting them into 4 or 5 roomed self contained houses with modern domestic conveniences, especially water carriage. There is, I believe, a distinct future in this type of conversion which I understand has been successfully attempted, especially in our better type of tenemental property.

(4). (a). Water Supply.

The water supply is plentiful and good if hard. The main difficulty is the fact that in all the poorer class of property the tap is in the yard, and shared with other tenants. No action has been taken during 1921.

(b). Closet Accommodation.

The present situation as regards closet accommodation has already been discussed (see page 28). The desirability of an all water carriage system is fully accepted in principle, although no action on a large scale has been taken during the past year. The conversion of approximately 5000 ash closets to water carriage under present conditions would be a costly undertaking but a satisfactory solution might be ultimately obtained on the following lines.

(1). All new houses will be on the water carriage system, as well as all conversions of present properties.

(2). Houses of working class type likely to exist in their present condition for a considerable term of years should be gradually converted probably under Sect. 39, P.H.A. of 1907, in which case the Council would participate in the expense.

(3). Properties now quite unfit or rapidly approaching that state should be left alone. Conversion to water carriage would only

lengthen their existence, and would be a mistake both on public health and economic grounds.

(4). The question of the adequacy of the present sewerage system to take a greatly increased load would have an important bearing on any conversion scheme.

(c). Refuse Disposal.

The ash closet is used for the storage of house refuse which is removed along with the general contents of the closets and dumped out at sea. With the more general introduction of water carriage the system of proper galvanised iron refuse bins ought to be introduced.

(D). UNHEALTHY AREAS.

(a). Old Church Area, etc.

As a result of inspections made in the latter part of 1919 the following three small areas were represented by the M.O.H. in January, 1920, under Part II. of the Housing Act, 1890:—

Area.	No. of Houses.	Over-crowded.	Health History.	General Conditions
Old Church	43	21	Bad	Dampness, defective lighting and ventilation, several semi cellar, defective yards, yard gullies, general disrepair, inadequate facilities for storing and preparing food.
East Ferry	10	6	Fair	Generally extreme dilapidations, defective eaves gutters, down-spoutings, brickwork, roofs, dampness, out-houses in bad repair, several rooms so bad as to be practically useless, etc.
Quay Corner	9	9	Fair	

(b). Albion Street Area.

In September this area in the Central Ward consisting of Burn Street, Gray Street and Albion Street with portions of High Street, Monkton Road, Staple Road and Grange Road was fully reported on by the M.O.H., being represented as a highly suitable area for an improvement scheme under Part I. of the Housing Act of 1890. This area has been under consideration by the Council for some years, and but for the war would probably have been tackled ere now. Without going into the details of the area, which were fully given in the special

report the following are the main reasons for condemning this area : –

(1). Congestion of houses.
(2). Overcrowding in individual houses.
(3). Bad health history.
(4). Preponderance of the small roomed house.
(5). Bad ventilation of the area.
(6). General unfit condition of many of the houses, especially the cottage houses of High Street and many of the Albion Street houses.

SUMMARY OF ALBION STREET, ETC., AREA.

	1 roomed.	2 roomed.	3 roomed.	4 roomed	5 roomed & over	Total.	
No. of Houses ...	53	217	47	16	6	339	houses.
Population	149	1074	268	97	32	1682	persons.
Overcrowded Houses	31	119	18	4	0	172	houses.

	Under 1 person per room	1-2 per room	2-3 per room.	3-4 per room	4-5 per room	5-7 per room
Houses containing	60	107	100	46	20	6

Average population per occupied house, 4.9.
Percentage of overcrowded houses, 50.

In both instances, i.e., Old Church, etc., and Albion Street areas, the Council, being satisfied as to the necessity for improvement schemes, has given instructions for a draft scheme to be prepared with the necessary plans, particulars and estimates.

It is, however, perfectly obvious that these unhealthy areas cannot be touched until a sufficiency of new houses has been provided to deal firstly with the prevailing overcrowding, and secondly with the population which must be displaced from the areas.

(c). Tyne Street—Ferry Street Area.

In accordance with the survey of housing needs, submitted in October 1919, this area of 170 houses was fully inspected in the latter part of 1919 and will be represented by the M.O.H. in 1921 as an area suitable for an Improvement Scheme under Part II. of the Housing Act of 1890. It is therefore unnecessary at this stage to describe the area in detail.

(E). BYE-LAWS RELATING TO HOUSES LET IN LODGINGS, ETC.

(a). Houses.

The present bye-laws date back to 1878. I understand from the Borough Surveyor that their revision has been under consideration.

(b). Houses Let in Lodgings.

The present bye-laws date back to 1879 but for several years no action has been taken under them. All complaints are dealt with under the Public Health Acts, and it is doubtful whether the adoption of the model bye-laws would at present in the necessarily congested condition of the town be of much advantage. Later, if and when the housing situation becomes easier, the model bye-laws should be adopted.

(c). Tents, Vans, Sheds.

No bye-laws have been adopted, necessary action being taken through the Public Health Acts.

Housing Conditions. Statistics.

1.—GENERAL.

(1) Estimated population	37204
(2) General death-rate	16.1
(3) Death-rate from tuberculosis	2.3
(4) Infantile mortality	84.8
(5) Number of dwelling-houses of all classes	7032
(6) Number of working-class dwelling-houses (estimated)	6328
(7) Number of new working-class houses erected	Nil

2.—UNFIT DWELLING-HOUSES.

I.—Inspection.

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	437
(2) Number of dwelling-houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910	529
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be **unfit for human habitation**	74
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	448

II.—Remedy of Defects without Service of formal Notices.

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	182

III.—Action under Statutory Powers.

A. Proceedings under section 28 of the Housing, Town Planning, &c., Act, 1919.

(1) Number of dwelling-houses in respect of which notices were served requiring repairs	244

(2) Number of dwelling-houses which were rendered fit—

(a) by owners 200

(b) by Local Authority in default of owners Nil

(3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close ..... Nil

B. Proceedings under Public Health Acts.

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 22

(2) Number of dwelling-houses in which defects were remedied—

(a) by owners..... 22

(b) by Local Authority in default of owners Nil

C. Proceedings under sections 17 and 18 of the Housing, Town Planning, &c., Act, 1909.

(1) Number of representations made with a view to the making of Closing Orders 1

(2) Number of dwelling-houses in respect of which Closing Orders were made 1

(3) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit ... Nil

(4) Number of dwelling-houses in respect of which Demolition Orders were made ..... Nil

(5) Number of dwelling-houses demolished in pursuance of Demolition Orders..... Nil

3.—UNHEALTHY AREAS.

Areas represented to the Local authority with a view to Improvement Schemes under (a), Part I., or (b), Part II., of the Act of 1890 :—

A.

(1) Name of area ..... Quay Corner, East Ferry, Old Church
(2) Acreage .....(approximately) 2 acres
(3) Number of working-class houses in area 62
(4) Number of working-class persons to be displaced ... 301

B.

(1) Name of area ..... Cambrian St., etc.
(2) Acreage ..... 8.2 acres
(3) Number of working-class houses in area 339
(4) Number of working-class persons to be displaced ... 1682

4.—Number of houses not complying with the building bye-laws erected with consent of Local Authority under section 25 of the Housing, Town Planning, &c., Act, 1919 ..... Nil

Staff Engaged in Housing Work with Duties of each Officer.

(a). Medical Officer of Health.

DUTIES. General supervision of work under Housing Acts, Inspection of Houses, Reports to Housing Committee, etc.

(b). Chief Sanitary Inspector.

Allotment of Duty—Quarter of his total time.

DUTIES.—Inspection, Supervision of Notices, Supervision of action after Notices have been served.

(c). Assistant Sanitary Inspector.

Allotment of Duty—About three-quarters of his total time.

DUTIES.—Inspection of Houses, Work in connection with Notices under the Housing Acts.

APPENDIX.

Table I.—Vital Statistics of whole district during 1920 and previous years.

Table II.—Cases of Infectious Disease Notified during the year 1920.

Table III.—Causes of, and ages at death during the year 1920.

Table IV.—Infant Mortality during the year 1920.

Table V.—Summary of work done on the administration of the Factory and Workshop Act, 1901, in connection with Factories, Workshops, Workplaces, and Homework.

TABLE I.—Vital Statistics of Whole District during 1920 and previous Years.

Year	Population estimated to Middle of each year.	Births			Total Deaths registered in the District.		Transferable Deaths.		Nett deaths belonging to the District.			
		Uncorrected Number.	Nett.						Under 1 year of age.		At all ages.	
			Number.	Rate	Number.	Rate	of Non-residents registered in the District.	of Residents not registered in the District.	Number	Rate per 1,000 Nett Births.	Number	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1913	35300	1064	1074	30·4	492	13·9	1	96	134	124	587	16·6
1914	36500	1181	1191	32·6	537	14·7	7	85	129	108	615	16·8
1915	35494	1042	1042	31·0	661	18·6	...	...	157	151	762	21·5
1916	36960	1077	1080	28·7	539	14·5	10	80	117	108	609	17·3
1917	35460(a)	1018										
	39528(b)	...	1025	25·9	477	13·4	8	102	106	103·4	571	16·1
1918	34097(a)	1058										
	38204(b)	...	1060	27·7	651	19.0	10	105	124	117	746	21·9
1919	35779(a)											
	37271(b)	998	1008	27·0	612	17·1	6	93	153	151·7	699	19·5
1920	**37204**	**1258**	**1297**	**34·8**	**461**	**12·3**	**1**	**139**	**110**	**84·8**	**599**	**16·1**

Area of District in Acres (exclusive of area covered by water)—
906 acres.

Total Population at all ages ... 33,732
Number of Inhabited Houses ... 6,911
Average number of Persons per house ... 4·8
} at census, 1911.

(a) for birth rate statistics.

(b) for death rate statistics.

TABLE II.—Cases of Infectious Disease notified during the Year 1926.

Notifiable Disease	Cases Notified in Whole District									Total cases notified in each locality						Total cases removed to Hospital
	At all Ages.	At Ages—Years.								North Ward	South Ward	East Ward	West Ward	Grange Ward	Central Ward	
		Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65.	65 and upwards								
Small-pox	...	...	...	...	...	...	...	...		...	...	...	...	...	...	
Cholera (*e*) Plague (*f*) ...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ...	22	1	8	11	1	1	...	...		1	9	3	3	1	5	15
Erysipelas	42	2	...	5	1	16	15	3		1	12	2	11	4	12	...
Scarlet fever	219	1	33	160	17	5	3	...		15	54	46	37	36	31	192
Typhus fever	...	...	...	...	...	...	...	...		...	...	...	...	...	...	..
Enteric fever	3	...	...	...	3	...	...	...		3	...	...	...	...	...	3
Relapsing fever (*r*) Continued ...	...	...	...	...	...	...	...	...		...	...	...	...		...	...
Puerperal fever	6	...	...	...	3	3	...			...	...	2	2	...	2	...
Cerebro-Spinal Fever ...	...	...	...	...	...	...	...	...		..	...	...	...	...	...	...
Poliomyelitis	1	...	...	1	...	...	...	...		...	...	...	...	...	1	...
Encephalitis Lethargica ...	3	...	...	2	1	...	...	...		...	2	...	...	...	1	...
Ophthalmia Neonatorum ...	4	4	...	...	...	...	...	...		1	...	1	1	...	1	...
Pulmonary Tuberculosis ...	89	...	9	23	25	21	11	...		18	14	17	17	3	20	...
Other forms of Tuberculosis ...	55	...	12	33	7	1	1	1		9	10	9	14	5	8	...
Chicken-Pox	55	...	54	1	...	...	...	...		14	12	7	6	8	8	...
Pneumonia, Influenzal Pneumonia ...	226	44	78	26	23	39	8	8		47	48	57	31	17	16	...
Malaria	6	...	...	...	5	1	..	...		2	...	2	1	1	...	...
Infantile Diarrhœa	65	22	39	4	...	...	...	...		15	15	16	9	1	9	...
Totals	796	74	233	266	86	87	38	12		126	176	162	132	76	114	210

Isolation Hospital.—Isolation Hospital at Primrose Hill, a short distance outside the Borough. Total available beds, 30. Number of diseases that can be concurrently treated, 3.

TABLE III.—Causes of, and Ages at, Death during the Year 1920.

Causes of Death		Nett Deaths at the subjoined ages of Residents whether occurring within or without the district (a).									Total deaths whether of Residents or non-residents in Institutions in the district (b).
		All ages	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 45	45 and under 65	65 and upwards	
All Causes	Certified	546	100	32	33	35	26	74	126	120	..
	Uncertified	53	10	..	5	4	9	10	9	6	3
Enteric fever		..	..	..	..	..	..	..	..	..	..
Small-pox		..	..	..	..	..	..	..	..	..	..
Measles		1	..	..	1	..	..	..	..	..	..
Scarlet Fever		5	..	..	1	4	..	..	..	..	..
Whooping-Cough		12	5	2	5	..	..	..	..	..	..
Diphtheria and Croup		6	..	..	2	3	1	..	..	..	..
Influenza		7	..	..	..	1	..	2	3	1	..
Erysipelas		6	1	..	..	..	..	..	3	2	..
Cerebro Spinal Fever		..	..	..	..	..	..	..	..	..	..
Meningitis		4	1	1	..	1	..	1	..	..	..
Organic Heart disease		42	..	..	..	3	..	3	18	18	..
Phthisis (Pulmonary Tuberculosis)		57	2	..	1	7	10	20	14	3	..
Tuberculous Meningitis		8	..	2	3	..	3	..	..	..	..
Other tuberculous diseases		22	..	4	7	3	3	4	..	1	..
Rheumatic Fever		1	..	..	..	1	..	..	..	..	..
Cancer, malignant disease		43	..	..	..	..	1	13	22	7	..
Bronchitis		63	5	3	6	..	..	4	14	31	..
Pneumonia (all forms)		82	33	13	3	6	6	5	10	6	..
Other Respiratory Diseases		9	1	1	..	1	..	3	3	..	..
Diarrhœa & Enteritis (under 2)		16	10	6	..	..	..	..	..	..	..
Appendicitis and Typhlitis		..	..	..	..	..	..	..	..	..	..
Alcoholism		..	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver		..	..	..	..	..	..	..	..	..	..
Nephritis and Bright's Disease		11	..	..	..	1	..	5	5	..	..
Puerperal fever		3	..	..	..	..	2	1	..	..	..
Other accidents and Diseases of pregnancy and parturition		2	..	..	..	..	..	2	..	..	..
Congenital debility & malformation including Premature Birth		40	40	..	..	..	..	..	..	..	..
Violent deaths, excluding Suicides		28	1	..	4	2	5	10	4	2	3
Suicides		1	..	..	..	..	..	..	..	1	..
Other defined diseases		127	11	..	5	4	4	11	39	53	..
Diseases ill-defined or unknown		1	..	..	..	..	..	..	..	1	..
Encephalitis lethargica, Poliomyelitis		2	..	..	..	2	..	..	..	..	..
Totals		599	110	32	38	39	35	84	135	126	3

TABLE IV.—Infantile Mortality.

1920. Nett Deaths from stated Causes at various ages under 1 Year of Age.

Cause of Death		Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total under 4 Weeks	4 Weeks and under 3 Months	3 to 6 Months	6-9 Months	9-12 Months	Total Deaths under 1 Year
All Causes	Certified	24	5	4	2	35	14	22	15	14	100
	Uncertified	4	2	...	1	7	...	1	1	1	10
Smallpox		...	...	...	...	...	...	...	...	...	...
Chickenpox		...	...	...	...	...	...	...	...	...	...
Measles		...	...	...	...	...	...	...	...	...	...
Scarlet Fever		...	...	...	...	...	...	...	...	...	...
Diphtheria and Croup		...	...	...	...	...	...	...	...	...	...
Whooping Cough		...	...	...	...	...	2	1	1	1	5
Diarrhœa		...	...	...	1	1	...	2	...	...	3
Enteritis		...	...	...	1	1	4	2	...	...	7
Tuberculous Meningitis		...	...	...	...	...	...	...	...	...	...
Abdominal Tuberculosis		...	...	...	...	...	...	...	...	...	...
Other Tuberculous Diseases		...	...	...	...	...	...	1	...	1	2
Congenital Malformations		...	1	...	...	1	...	...	...	...	1
Premature Birth		16	1	2	1	20	1	...	...	...	21
Atrophy, Debility and Marasmus		7	2	2	...	11	...	5	2	...	18
Atelectasis		2	...	...	...	2	...	...	...	...	2
Injury at Birth		1	...	...	...	1	...	...	...	...	1
Erysipelas		...	...	...	...	...	1	...	...	...	1
Syphilis		...	...	...	...	...	...	...	...	...	...
Rickets		...	...	...	...	...	...	1	...	...	1
Meningitis		...	...	...	...	...	...	...	...	1	1
Convulsions		2	...	...	...	2	1	1	1	...	5
Gastritis		...	...	...	...	...	...	...	...	...	...
Laryngitis		...	1	...	...	1	...	...	...	...	1
Bronchitis		...	...	...	...	...	1	1	1	2	5
Pneumonia (all forms)		...	1	...	...	1	3	9	11	9	33
Suffocation (overlying)		...	...	...	...	...	...	...	...	...	...
Other causes		...	1	...	...	1	1	...	...	1	3
Totals		28	7	4	3	42	14	23	16	15	110

Nett Births in the year —Legitimate 1242. Illegitimate 55.

Nett Deaths in the year —Legitimate 103. Illegitimate 7.

In recording the facts under the various headings of Tables I, II. III. and IV, attention has been given to the notes on the Tables.

G. R. BRUCE,

Date, March, 1921. Medical Officer of Health.

TABLE V.

ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH FOR THE YEAR 1920, FOR THE BOROUGH OF JARROW.

on the administration of the Factory and Workshop Act, 1901, in connection with

Factories, Workshops, Workplaces and Homework.

1.—INSPECTION. Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ..... (Including Factory Laundries .	15	...	...
Workshops ..... (Including Workshop Laundries).	204	1	...
Workplaces ..... (Including other than Outworkers premises).	51	...	...
Total	270	1	...

2.—DEFECTS FOUND.

Particulars	Number of Defects.			Number of Prosecutions.
	Found.	Remd'd	Referred to H.M. Inspector.	
Nuisances under the Public Health Act.				
Want of Cleanliness	1	1	1	...
Want of Ventilation	1	1	...	...
Other Nuisances	1	1	...	...
Sanitary Accommodation—	..	...	...	...
Insufficient	...	...	...	...
Unsuitable or defective				
Not separate for sexes	...	...	...	...
Total	3	3	1	...

3. HOMEWORK.

Nature of Work	Outworkers' Lists, Section 107			Inspection of Outworkers Premises
	Once in the year		Numbers of Addresses of Outworkers received and forwarded to other Councils.	
	Lists	Outworkers		
NIL.	...	...	NIL.	...

4. REGISTERED WORKSHOPS.

Class.	Number.
Workshops on the Register s. 131 at the end of the year.	
Whitesmiths	1
Painters	3
Upholstery	2
Boot Repairing	13
Joinery	8
Laundries	4
Plumbers	5
Tailoring	4
Dressmaking	9
Printers	1
Picture Framing	1
Blacksmiths	4
Cycle Repairing	2
Bottling Stores	3
Milliners	5
Cabinet Makers	2
Bakehouses	11
Total number of Workshops on Register	78

5. OTHER MATTERS.

Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s 5)	Notified by H.M. Inspector ...	1
	Reports (of action taken) sent to H.M. Inspector	1